Silent Tools™ Plus Charger 1.0 A

User manual version 1.0
Introduction

Purchase
Congratulations on your purchase of a Silent Tools™ Plus Charger A and the use of Silent Tools™ Plus.

This manual contains important safety directions and instructions for product setup and operation.

Keep for further reference

Product identification
Product type and article numbers are printed on the product. Refer to this when contacting Sandvik Coromant.

Validity of this manual
This manual applies to the Silent Tools™ Plus Charger A, 161929. Spare part No. 7120 110-01

Available documents
Silent Tools™ Plus Charger1.0 A user manual and other documents can be downloaded from the Sandvik Coromant website: http://www.sandvik.coromant.com
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1 Safety

1.1 General

Description
The following instructions should enable the person responsible for the product and the person who actually uses the equipment to anticipate and avoid operational hazards. The person responsible for the product must ensure that all users understand these instructions and adhere to them.

About warning messages
Warning messages are an essential part of product safety. They appear wherever hazards or hazardous situations can occur. For user safety, all safety instructions and safety messages shall be strictly observed and followed. Therefore, the manual must always be available to all product users.

DANGER, WARNING, CAUTION and NOTICE are standardized signal words for identifying levels of hazards and risks related to personal injury and property damage. For your safety it is important to read and fully understand the table below with the different signal words and their definitions. Supplementary safety information symbols may be placed within a warning message as well as supplementary information.
**Danger**
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**Warning**
Indicates a potentially hazardous situation or an unintended use which, if not avoided, could result in death or serious injury.

**Caution**
Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in minor or moderate injury.

**Notice**
Important information which must be adhered to in practice as it enables the product to be used in a technically correct and efficient manner.
1.2 Purpose

Permitted use
Charging Silent Tools™ Plus Charger 1.0 A battery

Adverse use
- Use of the product without instruction.
- Use outside of the intended limits.
- Disabling safety systems.
- Removal of hazard notices.
- Opening the product using tools, e.g., screwdriver, unless specifically instructed for certain functions.
- Modification or conversion of the product.
- Use after misappropriation.
- Use of products with obviously recognizable damages or defects.
- Use with accessories from other manufacturers without the prior explicit approval of Sandvik Coromant.

⚠️ Warning
Adverse use can lead to injury, malfunction and damage. It is the task of the person responsible for the equipment to inform the user about hazards and how to counteract them. The product is not to be operated until the user has been instructed on how to work with it.

1.3 Limits of use

Environment
Suitable for use in dry environment only and not under adverse conditions.
1.4 Areas of responsibility

Manufacturer of the product
Sandvik Coromant is responsible for supplying the product, including the user manual and original accessories, in a completely safe condition.

Manufacturers of non Sandvik Coromant accessories
The manufacturers of non-Sandvik Coromant accessories are responsible for developing, implementing and communicating safety concepts for their products, and are also responsible for the effectiveness of those safety concepts in combination with the Sandvik Coromant product.

Person in charge of the product
The person in charge of the product has the following duties:
- To understand the safety instructions on the product and the instructions in the user manual
- To be familiar with local regulations relating to safety and accident prevention
- To inform Sandvik Coromant immediately if the product becomes unsafe

⚠️ Warning
The person responsible for the product must ensure that it is used in accordance with the instructions. This person is also accountable for the training and the deployment of personnel who use the product and for the safety of the equipment in use.
1.5 Hazard of use

⚠️ Warning
The absence of instruction, or the inadequate imparting of instruction, can lead to incorrect or adverse use, and can give rise to accidents with far-reaching human, material, financial and environmental consequences.

Precautions: All users must follow the safety instructions given by the manufacturer and the directions of the person responsible for the product.

👋 Caution
The product is not designed for use under wet and severe conditions. If unit becomes wet it may result in electric shock.

Precautions: Use the product only in dry environments, for example in buildings. Protect the product against humidity. If the product becomes humid, it must not be used!

⚠️ Warning
If you open the product, either of the following actions may cause you to receive an electric shock.

• Touching live components
• Using the product after repair attempts failed

Precautions: Do not open the product. Only Sandvik Coromant authorized service workshops are entitled to repair these products.
⚠️ Warning
Batteries not recommended by Sandvik Coromant may be damaged if charged. They may burn and explode.

Precautions: Only charge batteries recommended by Sandvik Coromant.

⚠️ Warning
If the product is improperly disposed of, the following can happen:
• If polymer parts are burnt, poisonous gases are produced which may impair health
• If batteries are damaged or are heated strongly, they can explode and cause poisoning, burning, corrosion or environmental contamination
• By not disposing of the equipment responsibly you may enable unauthorized persons to use it in an unsafe or ill-advised manner, exposing themselves and third parties to the risk of severe injury and rendering the environment liable to contamination

The product must not be disposed with household waste.

Dispose of the product appropriately in accordance with the national regulations in force in your country. Always prevent access to the product by unauthorized personnel.

⚠️ Precautions: Product specific treatment and waste management information can be downloaded from the Sandvik Coromant home page at www.sandvik.coromant.com/services or received from your Sandvik Coromant dealer.
2 Description of the system

**Description**
Silent Tools™ Plus Charger 1.0 A is an intelligent charger. It is designed to charge the Silent Tools™ Plus specific battery for Charger1.0 A. As power supply, main power shall be used.

**General information**
One battery can be connected to the charger and charged.

**Notice**
We recommend starting up the product at this point, while continuing to read the operating Instructions.
Main Components

Available models
Silent Tools™ Plus Charger 1.0 A

Notice
The charger is designed to recharge one original Silent Tools Plus A battery.
<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Manual</td>
<td>User manuals</td>
</tr>
<tr>
<td>2 Li-ion Charger</td>
<td>Charger for Silent Tools™ Plus A Li-ion battery</td>
</tr>
<tr>
<td>3  Power</td>
<td>AC-DC power</td>
</tr>
<tr>
<td>4 DC plug</td>
<td>DC plug to charger</td>
</tr>
<tr>
<td>5 Adapter plug</td>
<td>EU plug</td>
</tr>
<tr>
<td>6 Adapter plug</td>
<td>US plug</td>
</tr>
<tr>
<td>7 Adapter plug</td>
<td>UK plug</td>
</tr>
</tbody>
</table>
3 Operation

3.1 Connecting the charge

Prepare the power supply:
1. Connect your required adapter plug (EU/UK/US) on the AC/DC power.
2. Connect the DC plug. Polarity must be correct + to +, see power supply manual. (Some power supply may have this pre-mounted)

Set the charger on a firm surface, before starting up.
1. Connect the DC plug from the power supply to charger.
2. Connect the power supply to the main power socket.

Start up
Always set the charger on a firm surface before starting it up.
Connect the charger with the supplied main cable to the main power socket.

Notice
Pull the plug from the main socket if the charger will not be used for a long period.

Function check
After the adapter is connected to the main power supply, a sensor at the DC power plug will light green. The functions light on the front of the charger will indicate status when a battery is inserted. Refer to section “3.4 Indicators” for additional information.
3.2 Inserting and removing battery

Inserting

1. Insert the battery into cylindrical hole 1 in charger.
2. Orient position cylinder 2 as shown.
3. Ensure position cylinder 2 goes into slot 3.
4. A soft click indicates assembly complete.

Removing

1. Grab the main body of the charger 1.
2. Grab cylindrical end of battery 2 and pull out gently.

Notice
The Silent Tools Plus battery is not similar to other batteries available on the market, there is no risk of inserting wrong type of battery.
3.3 Charging the battery

Procedure

Step Description

1. Connect the charger to the power supply. A green indicator light will come on at the DC connector.

2. Insert the battery.

3. A red function light indicates the battery is being charged. Charging is done in three steps: precondition, constant current and constant voltage.

Notice
Check the status indicators again after about one minute.

4. If both the green functional indicators light up, there is a defect present. Refer to section 3.4 Indicators.

5. The battery may be removed or remain connected to ensure it is fully charged when needed.

Notice
For refreshing Li-ion batteries, a single discharging and charging cycle is sufficient. We recommend carrying out the process when the battery capacity deviates significantly from the actual battery capacity available.
3.4 Indicators

Explanation of the symbols

Symbol  Meaning

[+]  Power LED off.
[-]  Power LED on.
[ ]  LED off.
[•]  LED on permanently.

Operation/ status indicators

Symbol  LED  Meaning

[+]  Off  The charger is not connected to the power supply.
[-]  On  The charger is connected to the power supply.
[ ]  Off/off  The battery is not present.
[•]  Red/off  The charger is connected to power supply. The battery is being charged.
[•]  Off/green  The battery is fully charged.
[••]  Red/green  A fault has been detected, refer to error description.
Fault indicators
In case of an fault, both function lights turn on to indicate a fault in the charger and battery system.

⚠️ Notice
If the charger indicates a fault when the battery is connected:

- The internal timer for maximum charging time might be reached. The charger stop charging after 8±1 hours.
- Temperature in the charger may be to high for safe charging of Li-ion battery. At temperatures above 45°C, the charger will automatically shut off.

Fault indicators
In case of fault, please also check:

⚠️ Notice
- If there is power coming from the main supply
- If the cables are all correctly connected and no obvious faults can be detected.
- Connect a different battery to check if the fault lies with the battery or the charger.
- Battery is defective.
- If the problem persists, contact Sandvik Coromant.
3.5 Tips

Notice
Avoid sudden ambient temperature changes while charging the battery (e.g., do not let the sun shine directly on the battery or the charger). Sudden ambient temperature changes may cause the charging process to end prematurely without having fully charged the battery.
4 Care and transport

4.1 Transport

When transporting the product by rail, air or sea, always use the complete original Silent Tools™ Plus packaging, transport container and cardboard box, or its equivalent, to protect against shock and vibration.

4.2 Storage

Product
Respect the temperature limits when storing the product, particularly in summer if the product is inside a vehicle. Refer to section 5 Technical data for information about temperature limits and packaging to be used for safe storage.

4.3 Cleaning and drying

Product
Cables and plugs
Use only a clean, soft, lint-free cloth for cleaning. Keep battery poles and power plugs clean and dry. Blow away any dirt lodged in the plugs of the connecting cables.
4.4 Conformity

EU
Sandvik Coromant AB, declares that the product Silent Tools™ Plus Charger1.0 A is in compliance with the following standards:

Safety:
• EN 60950-1

Electromagnetical Compability (EMC):
• EN 61000-6-2
• EN 61000-6-4

Following the provisions of EU-directives:
• 2014/35/EU (low voltage)
• 2014/30/EU (EMC)
• 2011/65/EU (Rohs2)

USA/Canada

Safety:
• UL 60950-1
• CSA C22.2#60950-1
4.5 FCC statement, applicable in U.S.

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to eliminate the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
Labels

Warranty
Sandvik Coromant AB warrants its equipment for a limited period of two years, from purchase date, provided that it is installed exactly as defined in associated Sandvik Coromant documentation.

Failure to comply with this will invalidate the Sandvik Coromant warranty. Claims under warranty must be made from authorized service/sales personnel from Sandvik Coromant only.
## 5 Technical data

<table>
<thead>
<tr>
<th><strong>Power supply</strong></th>
<th>Main connection ~ DC voltage connection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input voltage</strong></td>
<td>100-240 VAC, 50/60 Hz (EU, US, UK plug)</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>7.5V DC, maximum 2.0 a</td>
</tr>
<tr>
<td><strong>Power rating</strong></td>
<td>Output maximum power 15w</td>
</tr>
<tr>
<td><strong>Charger</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Input voltage</strong></td>
<td>7.5V DC (maximum 32V), 2.0 a</td>
</tr>
<tr>
<td><strong>Battery type</strong></td>
<td>Charger is for Sandvik Coromant type A, battery</td>
</tr>
<tr>
<td><strong>Charging power</strong></td>
<td>1.0 A fast charging current. Multiple stage Li-ion charging (Constant current, constant voltage) Thermal regulation / shutdown of charging 45°C Timer for charging, maximum 8±1 hours</td>
</tr>
<tr>
<td><strong>Operating environment</strong></td>
<td>Only operate in dry environment, e.g. in buildings. IP20 according to IEC 60529</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Storage power:</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td>- 25°C to +85°C,</td>
</tr>
<tr>
<td></td>
<td>- 13°F to +185°F</td>
</tr>
<tr>
<td>Storage charger:</td>
<td>- 40°C to +85°C,</td>
</tr>
<tr>
<td></td>
<td>- 40°F to +185°F</td>
</tr>
<tr>
<td>Operating power:</td>
<td>0°C to +40°C,</td>
</tr>
<tr>
<td></td>
<td>32°F to +104°F</td>
</tr>
<tr>
<td>Operating charger:</td>
<td>0°C to +45°C,</td>
</tr>
<tr>
<td></td>
<td>32°F to +113°F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recharging times</th>
<th>Charging at 20 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li-ion 3.7v, 2600mAh</td>
<td>2.5 to 3 h</td>
</tr>
<tr>
<td>Li-ion 3.7v, 3450mAh</td>
<td>3.5 to 4 h</td>
</tr>
</tbody>
</table>

| Indication | Refer to section 3.4 Indicators |
| Weight     | Approx. charger + power, 470g + 200g (packaging not included) |

| Dimensions | W x D x H: maximum 70 mm x 96 (123) mm x 50 mm; excluding (including) battery |

Sandvik Coromant Type A li-ion battery has a safety circuit, that has a very small drain on the battery. Regular charging of battery is advised.