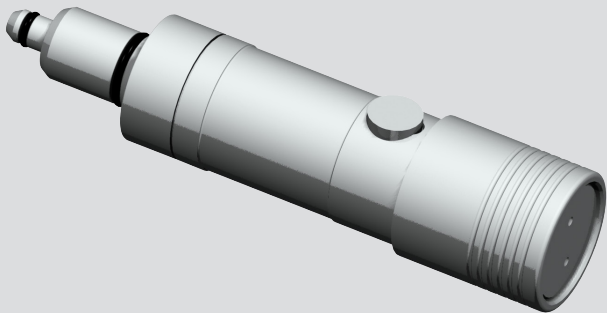




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# User manual

## Silent Tools™ Plus A Bat9.6Wh



Version 1.1

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# Introduction

## Purchase

Congratulations on your purchase of a Silent Tools™ Plus A Bat9.6Wh 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 ST+\_A\_Bat9.6Wh 157432 and 7130 110-01

### Available documents

Silent Tools™ Plus A Bat9.6Wh 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

Use the ST+\_A\_Bat9.6Wh battery to power the electronic units ST+:BT A 1PP, ST+:BT A 2PP or ST Plus BT A PPO.

### 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 under rough conditions, ref. technical data.

Not suitable for use in aggressive or explosive environments.

#### **CAUTION**

Do not use the battery in a high static energy environment where the protection device can be damaged.

## 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

## 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 user must use the battery as intended.

**Precautions:** Only Sandvik Coromant authorized service workshops are entitled to repair these products.

### **WARNING**

Do not use any charger other than the one supplied.

### **WARNING**

Do not attempt to disassemble or reconstruct the battery.

### **WARNING**

Do not throw or cause impact.

### **WARNING**

Do not pierce a hole in the battery with sharp things (such as nail, knife, pencil, drill).

 **WARNING**

Do not expose the battery to extreme heat (such as fire).

 **WARNING**

Do not put the battery into a microwave or high-pressure container.

 **WARNING**

Do not connect positive (+) and negative (-) with conductive materials (such as metal and wire).

 **WARNING**

Do not allow the battery terminals to be submerged in or wetted with water or sea water.

 **CAUTION**

Do not place the battery in direct sunlight or heat.

 **CAUTION**

Keep the battery away from children or pets.

## 1.6 Unpacking

**NOTICE**

Keep the packaging for safe storage of tools.

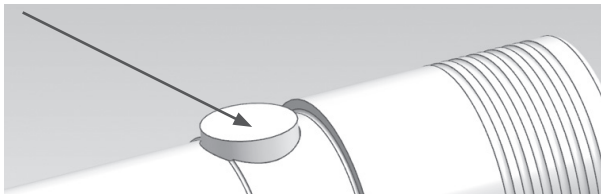
## 2 Safety features

Short-circuit current protection, detection delay time 50 $\mu$ s, short-circuit current release->release load.

- Over charge voltage protection 4.3 $\pm$ 0.05 V, release 4.1 V
- Over discharge protection 2.4 $\pm$ 0.1 V, release 3.0 V
- Max charge current 1.2A
- Over current discharge protection Min 2.5 A max 4.5 A

### CAUTION

In case of cell failure, the battery is equipped with a venting design. The orientation pin is designed to pop if overpressure occurs in the battery. Do not use the battery if the pin is damaged, loose or removed.



# 3 Operation

Batteries require charging before first use.

## **NOTICE**

Read the specific charger manual before charging.

## **NOTICE**

Charge time should not be longer than specified in the charger manual. If the cell is not charged after long exposure to the charger, discontinue charging.

## **NOTICE**

Battery must be charged at operating temperature range 0 ~ 45°C and discharged at operating temperature range -20 ~ 55°C.

- Charge battery in the Silent Tools™ Plus Charger until the charger indicates ready status
- Battery is of push-pull type and will only fit in one position in the CoroPlus® electronics as Silent Tools™ Plus BT A 2PP or Silent Tools™ Plus BT A 1PP
- Make sure the battery is pushed in all the way. There is a visual indicator for correct position

## **NOTICE**

Do not twist the battery when inserting or removing it. This may damage the orientation pin that is part of the venting safety design.

## 4 Care and cleaning

Make sure the O-rings on the front of the battery are free of damage. Replace if needed. Make sure battery poles are clean.

Clean with a dry cloth or with universal electrical contact cleaner spray.

Lubricate O-rings if battery is hard to insert/pull out.

### **NOTICE**

If cell life span shortens after long usage, please exchange to new cells.

### **NOTICE**

It is recommended to use the plastic protective cover when battery is not in use.



# 5 Storage

Store the battery at around 30 percent state-of-charge. Battery status can be monitored in CoroPlus® software (supplied separately).

## **NOTICE**

The battery must be stored separately.

## **NOTICE**

For long-term storage the battery must be stored in a cool, dry place.

## 6 Technical data

Model: ST+\_A\_Bat9.6Wh

Art.No.	157432
Spare part No.	7130 110-01
Type A	Li-ion 1ICR18/65 3.6VDC/9.36Wh / 2600mAh (Cell made in South Korea)
Size	Ø29 ×123 mm
Weight	132 g
Temperature range	Charging: 0 ~ 45°C Discharging: -20 ~ 55°C
Spare parts	O-ring (large): 12.1x1.6 NBR 70Shore A O-ring (small): 4.1x1.6 NBR 70Shore A

# 7 Warranty/regulations

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.

# 8 Approvals

IEC 62133, UN38.3, UL1642, RoHS (Directive 2011/65/EU)

Li-ion batteries are classified as dangerous goods for transport according to the UN model regulation for the transport of dangerous goods.



This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, bring it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

## 9 Warning/disclaimer on liability

The information provided in this battery information fact sheet is indicative and only valid at the date of its publication. The information given is designed only as a guidance for the safe handling, storage and transportation of these batteries. It is not to be considered as a warranty or quality specification. It is the responsibility of each individual handling these batteries to obtain from the supplier of the batteries the most appropriate information in order to complement, adapt or correct the content of this battery information fact sheet.





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