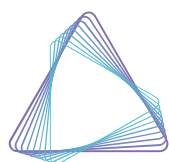


# IntelliXcap™ S1 User Manual

Semi-Automated Screw Cap Decapper Re-capper, 1-channel,  
compatible with large format sample storage tubes and vials



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393573 Revision A

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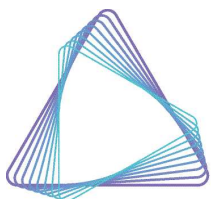
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# 1. Safety



The IntelliXcap S1 is intended to be used by trained personnel to perform screw cap decapping/capping. In this manual, it is assumed that the user has knowledge of basic laboratory procedures.


Use of the instrument in a manner, or for purposes not specified by Azenta may result in personal injury or damage to the device.

Ensure the following safety precautions are adhered to:

- Do not use the device in a potentially explosive environment or with potentially explosive chemicals.
- Avoid placing the device in direct sunlight.
- Install the device in a location free of excessive dust.
- Install the device in a room with a temperature of 15 - 30 °C, relative humidity of 20 - 80%.
- Choose a flat, stable surface capable of bearing the weight of the device.
- Ensure the power source conforms to the required power supply specifications.
- To avoid electric shock, ensure the device is plugged into a grounded electrical outlet.
- Do not allow water or any foreign objects to enter the various openings of the device.
- The use of excessive force should be avoided.
- Only use the original power adapter supplied by the manufacturer.
- To ensure proper ventilation, make sure the device has at least 30 cm of free space all around.
- Do not place this device where it is difficult to disconnect the power adapter.

## Regulatory Compliance and Declaration of Conformity

The IntelliXcap S1 meets the requirements of the European Union's Machinery Directive 2014/30/EU, Low Voltage Directive 2014/35/EU, and 2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.. In accordance with the Directive, Azenta Life Sciences has issued a Declaration of Conformity and the IntelliXcap S1 has a CE mark affixed.

DOCUMENT NUMBER: <b>394199</b>	TITLE: <b>Declaration of Conformity, Low Voltage Directive</b>	
REVISION: C	DOCUMENT CLASSIFICATION:	
ECO# EC138668	04-Form, Template or Other	

### DECLARATION OF CONFORMITY

Description: IntelliXcap S1

Function: The IntelliXcap S1 is an Automated Screw Cap Decapper that utilizes motors, gears and grippers to de-cap and cap screw cap tubes. It is designed to handle screw caps of a broad range of diameters without changing the grippers.

Product code: 46-0001

Business name and full address of the manufacturer of the machinery:

Azenta Life Sciences, Northbank, Irlam, Manchester M44 5AY, United Kingdom

Name and address of the person, established in the Community, authorized to compile the relevant technical documentation:

Azenta Life Sciences (Germany) GmbH, Im Leuschnerpark 1B, 64347 Griesheim, Germany

The manufacturer declares:

- That this equipment fulfills all the relevant provisions of Low Voltage Directive 2014/35/EU.
  - EN 61010-1:2010+A1:2019. Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements
- That this machinery fulfills all the relevant provisions of Directive 2014/30/EU (EMC Directive)
  - EN 61326-1:2021. Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements
- That this machinery is in conformity with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment and amendment 2015/863/EU.
  - BS EN IEC 63000:2018. Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Year CE Marking Affixed to Product: 2025

Signed for and on behalf of Azenta Life Sciences:

*Konrad Kotas*

Print name: Konrad Kotas  
Position: Senior Global Compliance Manager  
Place: Irlam, Manchester  
Date: 11 February 2025

Confidential: The information is confidential and is to be used only in connection with matters authorized by Azenta and no part of it is to be disclosed to others without prior written permission from Azenta.

Date Printed: Tuesday, February 11, 2025

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PAGE 1 OF 1

## 2. Introduction



The IntelliXcap S1 is an Automated Screw Cap Decapper that utilizes motors, gears and grippers to decap and cap screw cap tubes. It is designed to handle screw caps of a broad range of diameters without changing the grippers.

# Product Overview



Number	Description
1	Operation panel
2	Power/Selection Button
3	USB-C socket (on back of device)
4	Grippers
5	Stand

## Product Specifications


Specification	Value
Width	170 mm
Depth	240 mm
Height	300 mm
Weight	3.8 kg
Cycle Time Decap/Cap	< 3 sec
Compatibility	11 - 40 mm diameter screw cap tubes
Sensing Method	Pressure sensor
Operation Modes	Five modes
Power Adapter	Input: AC100 - 240 V, 50/60 Hz; Output: DC 24 V, 2.7 A, 65 W
Power Jack	USB-C
Certification	CE

# 3. Installation

## Unpacking



### Preparation

Step	Action
1.	Find an appropriate location to install the device. See <a href="#">"Safety" on page 6</a> for information regarding environmental and electrical safety requirements for installing the device.

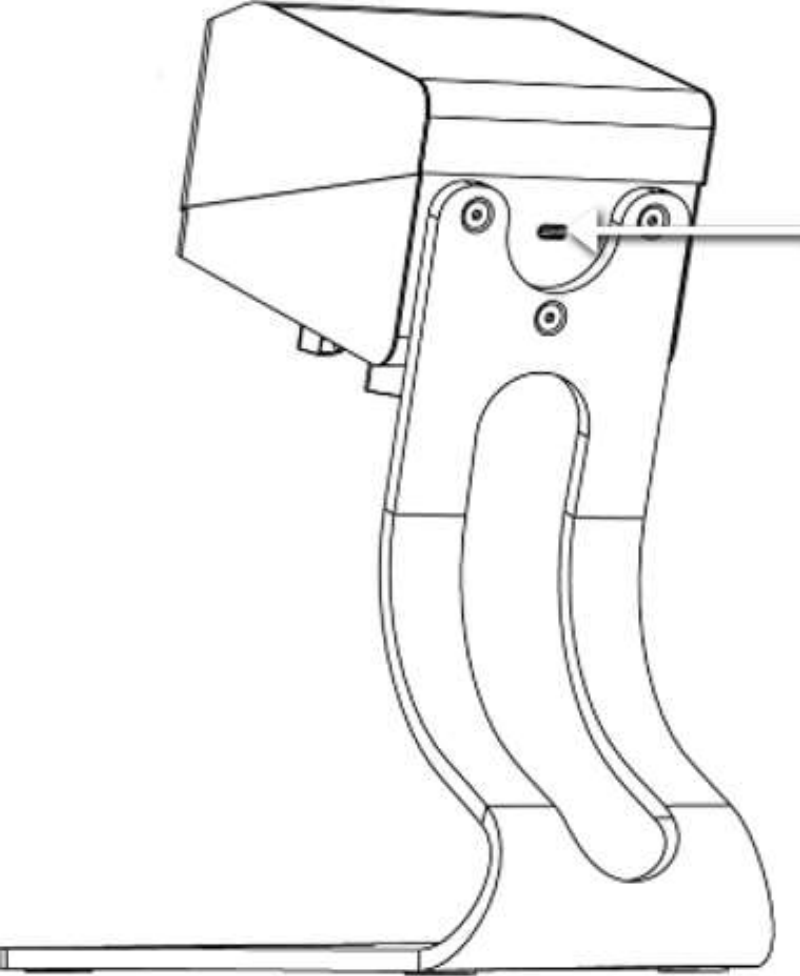
Step	Action
2.	<p data-bbox="435 352 1057 386">Move the box to an appropriate unpack area.</p> 

Step	Action
3.	<p>Unpack the kit and inspect and confirm the contents (as described in <a href="#">"Package Contents" on page 16</a>) are present and correct.</p> 
4.	<p>Report any missing or damaged items to Azenta Life Sciences.</p>

Package Contents

Item Description	Quantity	Image
IntelliXcap S1 device	1	
Power Supply with International Adapter Set	1	
Power cord	1	N/A
User manual	1	N/A
Declaration of Conformity	1	N/A







## Setting up the Device

Step	Action
1.	<p>Plug the USB-C jack of the power adapter into the USB-C socket on the back of the device.</p>  A line drawing of the IntelliXcap S1 device, which is a handheld, ergonomic tool with a handle and a head. The back of the device is shown, and a USB-C port is highlighted with a circle and an arrow pointing to it. The device has a rectangular head and a curved handle with a trigger-like button.
2.	<p>Plug the power adapter into an external power source.</p>

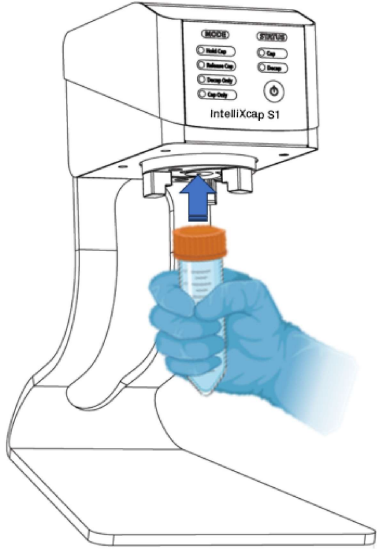
# 4. Operation

## Operation Modes

The following table describes the function of each of the operation modes.

Mode	Function(s)
 Hold Cap	Decaps the tube and holds the cap Recaps the tube using the held cap
 Release Cap	Decaps the tube and leaves the cap loose on the tube Caps a loose cap on the top of a tube
 Decap Only	Decaps the tube and releases the cap immediately
 Cap Only	Caps a loose cap on the top of a tube
 Release Cap  Decap Only	Decaps the tube with a delayed release

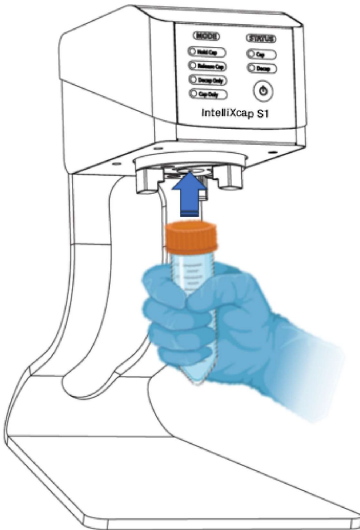

## Capping and Decapping










Step	Action
1.	Press the power button for 3 seconds to turn on the device.
2.	Press the power button repeatedly to select the required mode.
3.	If the cap is too tight, loosen it manually.
4.	<p>Hold the tube in hand, and lightly press straight up on the center of the disc to trigger the motor. Once the motor is triggered, you do not need to apply upward force.</p> <p><b>NOTE:</b> It may be easier to open the cap by holding the tube and turning it in the opposite direction when the motor is activated.</p> 
5.	If the cap is not closed correctly, repeat steps 3 and 4.
6.	If the cap needs to be extremely tight, tighten it manually.
7.	Press the power button for 3 seconds to turn off the device.

## Cycle Time Setting

The IntelliXcap S1 is built with three different cycle times for selection to accommodate most tubes. The shorter time setting provides express operation, while the longer time setting is intended for tubes with longer threads, requiring longer decapping/recapping times

The following procedure describes how to set the cycle time:

Step	Action
1.	Press the power button for 3 seconds to turn on the device.
2.	<p>In Hold Cap mode, use a tube to press up on the center of the disc to trigger the motor.</p>  <p>The Hold Cap mode and Cap status indicators are illuminated.</p> 

Step	Action																						
3.	Press the power button for 3 seconds to select the different cycle time. The LEDs will blink when setting the cycle time.																						
	<table><tr><th rowspan="2">Setting</th><th colspan="2">Cycle Time(s)</th><th rowspan="2">Indicator</th><th rowspan="2">Image</th></tr><tr><th>Decap</th><th>Recap</th></tr><tr><td>1 - default</td><td>1.1</td><td>1.0</td><td>Hold Cap blinks</td><td></td></tr><tr><td>2 - shorter time</td><td>1.1</td><td>0.7</td><td>Release Cap blinks</td><td></td></tr><tr><td>3 - longer time</td><td>1.9</td><td>1.8</td><td>Hold Cap and Release Cap blink</td><td></td></tr></table>	Setting	Cycle Time(s)		Indicator	Image	Decap	Recap	1 - default	1.1	1.0	Hold Cap blinks		2 - shorter time	1.1	0.7	Release Cap blinks		3 - longer time	1.9	1.8	Hold Cap and Release Cap blink	
	Setting		Cycle Time(s)				Indicator	Image															
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2 - shorter time	1.1	0.7	Release Cap blinks																				
3 - longer time	1.9	1.8	Hold Cap and Release Cap blink																				
4.	<p>Use a tube again to press up on the center of the disc to trigger the motor and complete the setting.</p> <p><b>NOTE:</b> The cycle time setting will be kept after rebooting the IntelliXcap S1.</p>																						

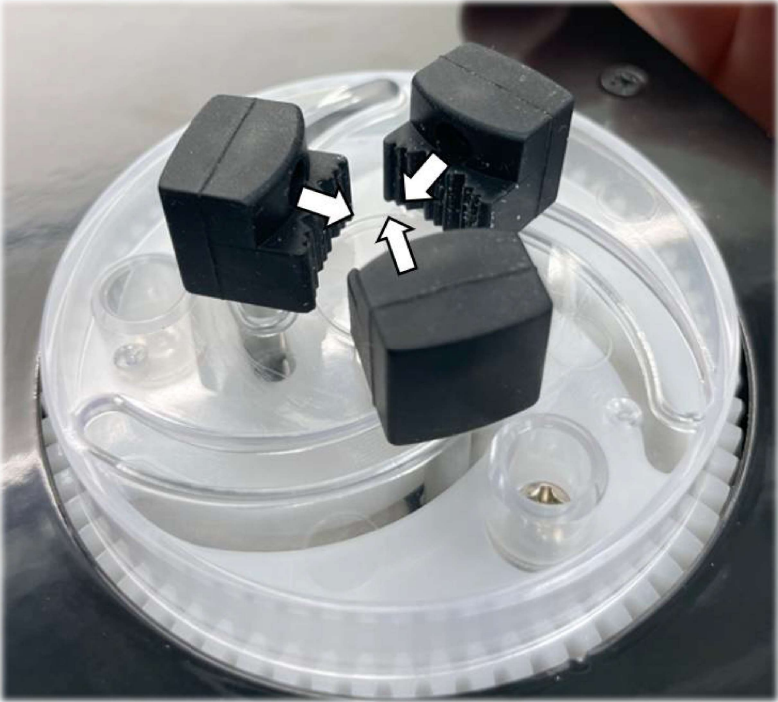
# 5. Maintenance

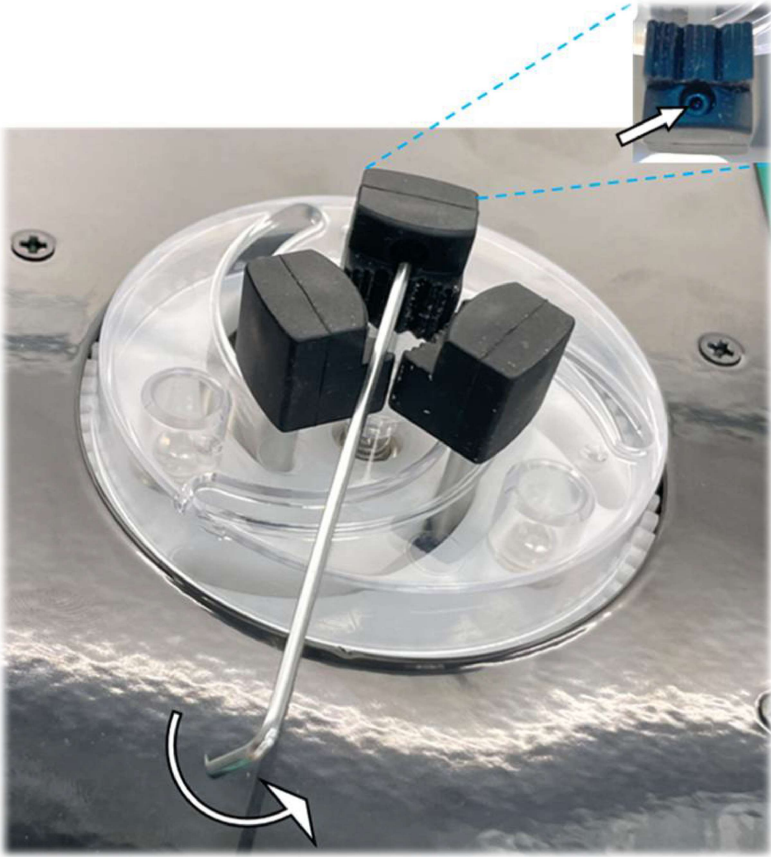
## Gripper Replacement


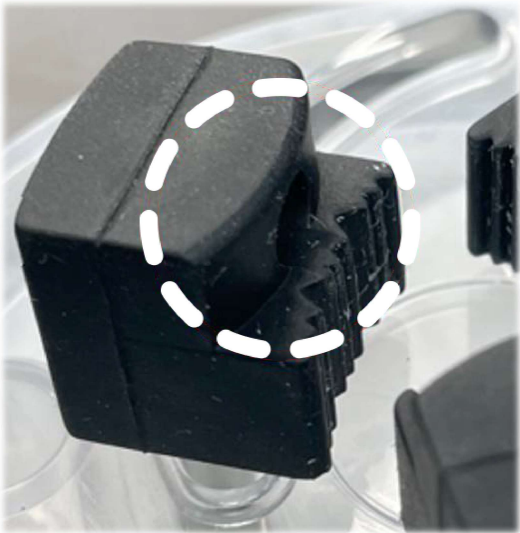
The grippers will require occasional replacement, particularly when the grippers cannot grip the cap firmly.

To replace the grippers, carry out the following steps:

Step	Action
1.	Ensure that the power is turned <u>off</u> .

Step	Action
2.	<p data-bbox="375 352 818 386">Move the grippers to the center.</p> 

Step	Action
3.	<p data-bbox="375 359 1372 394">Use a 1.5 mm hex key to loosen the screw on the inside of each gripper.</p> 

Step	Action
4.	<p data-bbox="375 352 675 386">Remove the grippers.</p> 
5.	<p data-bbox="375 1083 1360 1159">Attach the new grippers with the 1.5 mm hex key, ensuring the screw is locked in place and does not protrude from the gripper.</p> 

## Cleaning and Decontamination

Before cleaning or decontamination, disconnect the power adapter. The decapper can be cleaned or decontaminated with 70% ethanol or a 10% commercial bleach solution.

## Transportation and Storage

This device should be transported in the box provided and stored in an environment with a temperature between -10 and 60 °C and with a relative humidity of 20 - 80%.



# 6. Appendices



This chapter contains the appendices for the IntelliXcap S1 User Manual.

## Appendix A: Ordering Information

Order No.	Description
46-0001	IntelliXcap Semi-Automated Screw Cap Decapper Re-capper, 1-channel, compatible with large format sample storage tubes and vials

## Appendix B: Compliance

The IntelliXcap S1 is compliant with the following:

- Low voltage directive 2014/35/EU
- EMC 2014/30/EU
- Directive 2011/65/EU
- WEEE Directive 2002/96/EC
- RoHS
- China RoHS
- REACH

## Appendix C: WEEE Statement (European Union)



The symbol above indicates that Waste Electrical and Electronic Equipment (WEEE) is not to be disposed of as unsorted municipal waste. Equipment marked with this symbol is to be collected separately.

The objectives of this program are to preserve, protect and improve the quality of the environment, protect human health and utilize natural resources prudently and rationally. Specific treatment of WEEE is indispensable in order to avoid the dispersion of pollutants into the recycled material or waste stream. Such treatment is the most effective means of protecting the customer's environment.

The waste collection, reuse, recycling, and recovery programs available to Azenta Life Sciences customers vary by customer location. Please contact the responsible body (e.g., your laboratory manager) for information about local requirements.