

ORIGINAL INSTRUCTIONS FOR USE SPL GUARD ARIZONA



 SPL GUARD

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1. Introduction

1.1 About this document

This user manual describes all user-steps of the SPL Guard Arizona, and always has to be present at the location of use. Every operator needs of to have read the user manual, before operating the machine.

Any variations from the procedures described in this manual may lead to instrument malfunction. The following signal words and symbols are included in this user manual to emphasize important instructions and to alert users to potential hazards.

Symbol	Definition
	WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in damage to the instrument or personal injury. This signal is used only in extreme situations and, therefore, requires special attention.
	ATTENTION: Indicates problems or important information. Read the accompanying text carefully as it is important for understanding the specific topic or command.
	NOTE: Indicates information that is useful, but not essential, to a task. Read the accompanying text carefully as it can help to clarify particular issues.

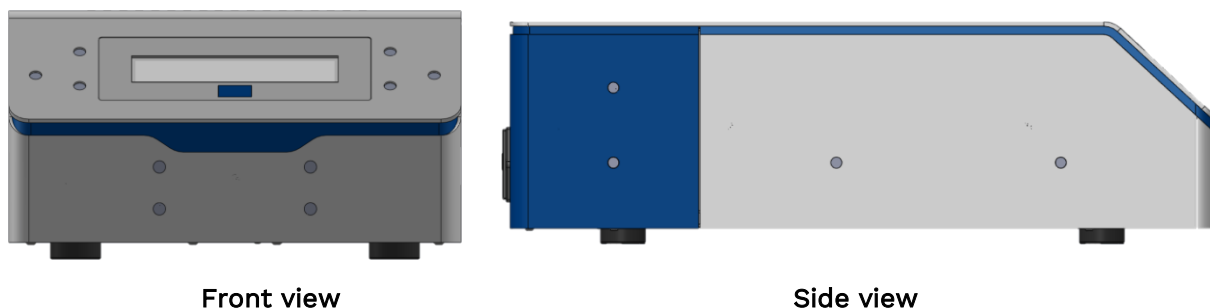
2. Introducing the SPL Guard Arizona

2.1. Intended use

The SPL Guard Arizona should only be used for the process of thawing samples. It can thaw racks that comply with ANSI/SLAS standards.

This machine can only be used in laboratory-type environments and can only be operated by qualified personnel. The definition of qualified personnel can be read in paragraph 2.5 “Definition of users”.

2.2 Overview of the SPL Guard Arizona



Front view

Side view

2.3 Display and menu structure

1. Waiting for start	
2. Display of run values (program number and parameters)	
3. Live temperature during cycle	

2.4 Specifications

Specifications	
Voltage	230V 50 Hz / 110V 60Hz
Machine Dimensions	Height: 138 mm Length: 471 mm Width: 270 mm
Weight of machine	15kg / 33lbs
Working temperature	-4°C / +30°C
Volume (noise)	Max. 70 dB
Compatibility	ANSI/SLAS compliance
Cycle time	Ca. 5 minutes
Environment	Only intended for professional industrial laboratory usage. Only use in a dry environment.



WARNING: The SPL Guard Arizona is only suitable for tubes of which the content of the tubes does not harm the machine nor the environment. Always follow the MSDS information paper of the content in the tube.

2.5 Definitions of users

Operator: Personnel that has read this User Manual. The operator can work with the machine and change machine settings.

Service: Personnel that has read this User Manual. Service personnel can work with the machine, perform preventive maintenance and change machine settings.



NOTE: Consult chapter “4.4 Adjust Settings” for more information about changing the machine settings.



WARNING: Users are not allowed to bypass or (temporarily) disable safety features.

2.6 Basic concept

Place the rack on the rack bay. Press the button on the front panel to start thawing. When the rack reaches the calibrated temperature, the machine will automatically stop.

3. General information

3.1 Safety precautions



WARNING: For personal safety, do not put a limb in the rack opening on the front side of the machine due to risk of entrapment. The area is indicated with the following symbol:



WARNING: For personal safety, the SPL Guard Arizona must be switched off and disconnected from power supply before any installation, repair, cleaning or maintenance work is carried out.



WARNING: To prevent unintended damage to the device it is absolutely essential that you read and understand the operating instructions. Furthermore, the owner is responsible for ensuring that appropriate instructions are provided to users of the device.



ATTENTION: In the event of a situation arising where safe operation of the SPL Guard Arizona cannot be guaranteed, the device must be switched off and not be used until service personnel can repair it. Examples of such situations may include:

- The SPL Guard Arizona is visibly damaged;
- The SPL Guard Arizona stops working properly;
- When switching the SPL Guard Arizona on, fuses immediately blow.

Repairs must only be carried out by service personnel, using SPL Guard parts.

The device must only be operated by appropriately trained and instructed personnel who are familiar with all aspects of safety relating to this device. The SPL Guard Arizona must not be used for any purpose apart from the outlined application (see paragraph 2.1 Intended use).

3.2 Service and maintenance

It is recommended to check the operation of the SPL Guard Arizona at least once a year, by performing a thawing cycle. This service must be carried out by service personnel only.

3.3 Warranty and liability



WARNING: Repairs should only be carried out by a specialist from SPL Guard or under the supervision of SPL Guard personnel.

The product contains proprietary and confidential information and such information may not be disclosed to other parties for any purpose, or used for manufacturing purposes, without prior written permission from SPL Guard.

3.4 How to react after malfunctioning SPL Guard Arizona

1. Do not open the SPL Guard Arizona by yourself, only with permission of SPL Guard or service personnel.
2. In case of malfunction or other questions please contact SPL Guard.



NOTE: In case of repairs, the SPL Guard Arizona or parts of it should be send to SPL Guard for inspection, maintenance, replacement or repair.

4. Installation

Your package should contain the following parts:

- SPL Guard Arizona
- Power cord, specific to your country (European, United States or United Kingdom use)
- Getting started with the SPL Guard Arizona
- User Manual of the SPL Guard Arizona



NOTE: Before moving the SPL Guard Arizona, it must be emptied and disconnected from the mains.

4.1 Installation conditions

- The SPL Guard Arizona must be placed on a clean, dry, stable and horizontal surface which is capable of holding at least 30 kg (66 lbs).
- For user convenience and ease of access, the front edge of the device must be positioned near the front of the bench so that the user interface is always accessible.
- The chosen area must not present a hostile environment to the device or its intended use.



WARNING: Do not use the device in an area with the following characteristics: high concentrations of dust, high humidity, explosion danger or storage of toxic chemicals.

4.2 Installation instructions

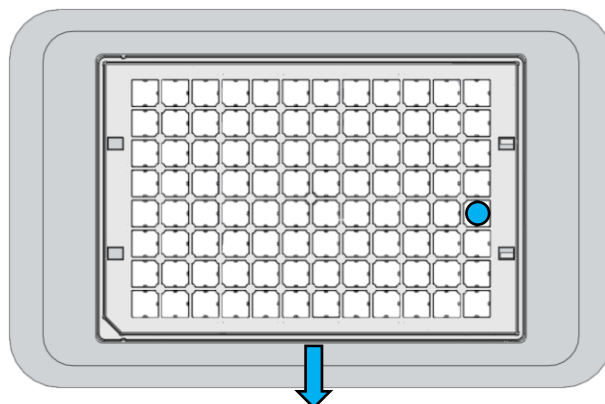
1. Ensure that the network voltage and fuse rating are compatible with the SPL Guard Arizona (115 VAC – 230 VAC, 50-60 Hz).
2. To prevent electric shocks or damage to the device, always plug the SPL Guard Arizona into fully grounded power sources (PE).
3. Turn the machine on by enabling the power switch on the backside of the machine.
4. Ensure that the user interface is facing to the front edge of the workplace.

4.3 Operational instruction

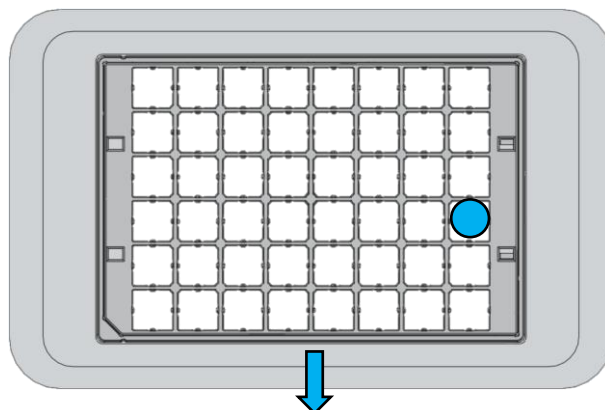
1. Place a rack in the rack bay. Ensure that at least one tube is located at the IR-sensor position, like shown in the pictures below.
2. To select a program, press the blue button: the currently selected program number will be shown. If the button is pressed again within a few seconds, the program will change (and thus the corresponding parameters). When the blue button is released for a couple of seconds, the machine will start thawing.
3. When the tubes reach the calibrated temperature, the machine will turn off and make a beeping sound.
4. Press the blue button again to confirm, the beeping sound will stop.
5. Remove the rack from the rack bay.

Tube positions for each rack format (arrow indicates the front side of the machine):

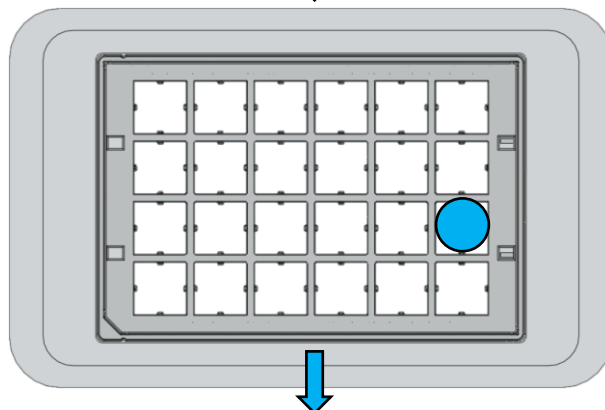
96-format



48-format



24-format



NOTE: For accuracy purposes, it can be wise to place one tube next to the marked tube location, in each direction.

4.4 Adjust settings

The SPL Arizona has pre-set settings. These settings can be changed using a serial communication utility, please refer to the “SPL Guard Arizona Software Settings Manual” for more details.

5. Maintenance

5.1 Cleaning

Periodic cleaning procedures must be performed to ensure optimal performance of the SPL Guard Arizona.

- The outside of the SPL Guard Arizona should be cleaned with a damp cloth
- All internal parts are maintenance free
- When the inside of the machine contains some condensation of the thawing process, please clean this with a dry cleaning cloth.



WARNING: Ensure that the ventilators are not running when cleaning the inside of the machine.

5.2 Troubleshooting

The following table can help to remedy certain problems that may be encountered when operating the SPL Guard Arizona. The table contains the symptom, possible cause and corrective action related to the particular problem. If the problem is not solved by reading the symptoms in the table, please inform SPL Guard right away.

Symptom	Possible Cause	Corrective Action
Device does not start up	<ul style="list-style-type: none"> • Main fuse has blown • PCB board is defect 	<ul style="list-style-type: none"> • Check connection to power • Check fuse under power connector • Contact SPL Guard if internal fuses are blown
Device stops in mid cycle	<ul style="list-style-type: none"> • Main fuse has blown • PCB board is defect 	<ul style="list-style-type: none"> • Shut down and disconnect all mains • Restart the device • Contact SPL Guard if internal fuses are blown • Contact SPL Guard if the PCB board is defect
Device shows strange temperatures	<ul style="list-style-type: none"> • Infrared sensor is out of position • Infrared sensor is defect • Calibrated values are faulty 	<ul style="list-style-type: none"> • Check the positioning of the sensor • Contact SPL Guard if the sensor is defect • Contact SPL Guard if the calibrated values are faulty

5.3 Error Handling



NOTE: When an error is not solved or regularly occurs, please contact SPL Guard.

6. Manufacturer

 Platinastaat 4, 8211 AR Lelystad, The Netherlands
 Tel: +31 (0)88 277 8900
 info@splguard.com
 www.splguard.com

6.1 CE marking



DECLARATION OF CONFORMITY

SPL Guard

located in Lelystad, the Netherlands

Declares on its own responsibility that the product,

SPL Guard Arizona, Serial numbers SPL-AR-###

In accordance with the EC directives

73/23/EEC	Low voltage equipment
89/336/EEC	Electromagnetic compatibility
2002/96/EC	Waste Electrical & Electronic Equipment

Is in compliance with the following standards or normative documents:

EN 61010-1:2001-02	Safety requirements for electrical equipment for measurement, control and laboratory use – general requirements.
EN 61326-1 +A:1998 and +A2:2000	Electrical equipment for measurement, control and laboratory use – EMC requirements.

Lelystad, 01 August 2022.

Patrick van Wijk, General Manager

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7. Customer service

For any questions, please contact SPL Guard or your local distributor.

☎ Tel: +31 (0)88 277 8900

✉ info@splguard.com