



ORIGINAL INSTRUCTIONS FOR USE
SPL Guard Florida



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1. Introduction

1.1 About this document

This user manual describes all user-steps of the SPL Guard Florida , and always has to be present at the location of use. Every operator needs 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 Florida

2.1. Intended use

The SPL Guard Florida should only be used for the process of thawing samples. It can thaw racks and samples in different sizes and varieties.

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 Florida



Front view



Rear view

2.3 Operating button



0 = Florida is Off

1 = Direct mode

R = Remote I/O

See 4.3 For details about the operating options.

2.4 Specifications

Specifications	
Voltage	12.0V – 3.0 A DC
Machine Dimensions	Height: 135 mm Length: 735 mm Width: 235 mm
Weight of machine	6kg / 13.3lbs
Working temperature	-4°C / +30°C
Volume (noise)	Max. 60 dB
Compatibility	Complian with all kinds of labware
Cycle time	Depending on type of labware
Environment	Only intended for professional industrial laboratory usage. Only use in a dry environment.



WARNING: The SPL Guard Florida 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.



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

2.6 Basic concept

Place the rack on the rack bay. Push the button on top of the Florida to position “1” to start thawing. Push the button back to “0” once the desired thawing is reached. See 4.3 For more details about the operating options, including Remote I/O.

3. General information

3.1 Safety precautions



WARNING: For personal safety, do not put objects, liquids, etc. through the small holes on top of the machine. This may be hazardous and lead to malfunction of the machine.



WARNING: For personal safety, the SPL Guard Florida 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 Florida 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 Florida is visibly damaged;
- The SPL Guard Florida stops working properly;
- When switching the SPL Guard Florida 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 Florida 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 Florida 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 Florida

1. Do not open the SPL Guard Florida 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 Florida 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 Florida Thawing Station
- Power adapter, specific to your country (European, United States or United Kingdom use)
- Cable for remote I/O
- 12 AV/DC adaptor
- Tube Rack High
- Microplate cradles SBS format 10 pcs.
- Tube Rack Low
- Getting started with the SPL Guard Florida
- User Manual of the SPL Guard Florida



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

4.1 Installation conditions

- The SPL Guard Florida 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 operating button 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

Step 1: Remove the SPL Guard Florida thawing station from packaging.

Step 2: Plug the adaptor into the jack on the back of the unit. Please note: only use the power adaptor which is supplied with the equipment.

Step 3: Connect the adaptor plug to an electrical outlet.

Step 4: Position the unit with the logo side facing out.

Step 5: Leave at least 6 inches / 15 centimeters of space for free air flow at the back of the unit.

Step 6: Position plate cradles in any desired portrait or landscape configuration.

4.3 Operational instruction

There are two operational modes: Direct Mode and Remote I/O.

Option 1: Move the 3-way switch towards the rear of the unit for Direct Mode. This will directly power on the unit for standalone use. In Direct mode the thawing station will run continuously until the unit is manually powered off by moving the switch to the center position.

Option 2: Move the 3-way switch towards the front of the unit for Remote I/O. This will enable remote I/O control through your automated system. In Remote I/O the thawing station can be toggled on or off via the software controls for the selected remote port.

INSTALLATION ON A ROBOTIC WORKSTATION

Step 1: Install the SPL Guard Florida in any available space on your workstation deck as described in installation standalone setup – step 1 up to 4.

Step 2: On Tecan Freedom EVO® liquid handlers, the SPL Guard Florida should be positioned with its front surface flush to the backside of carriers affixed to the central working surface to allow robotic arm access. On other liquid handlers, position the SPL Guard Florida as required for desired access to robotic manipulators.

Step 3: Connect the remote access cable to the remote port next to the power switch.

Step 4: On Tecan Freedom EVO® liquid handlers, connect the other end of the remote cable to any available 3 pin I/O port on the SMIO board. For integration with other liquid handlers connect remote cable to any 3 pin port with the following (L-R) pinout: Blank / +24V / Ground. If no such connection is available, contact your local distribution partner as custom remote cables may be purchased separately.

Step 5: Position plate cradles onto top surface as desired for matrixing to automated scripts.

5. Maintenance

5.1 Cleaning

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

- The outside of the SPL Guard Florida should be cleaned with a damp cloth
- All internal parts are maintenance free

5.2 Troubleshooting

The following table can help to remedy certain problems that may be encountered when operating the SPL Guard Florida. 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"> • Power adapter plug is not positioned correctly • PCB board is defect 	<ul style="list-style-type: none"> • Check connection to power • Check if power adapter plug is positioned correctly
Device stops in mid cycle	<ul style="list-style-type: none"> • Power adapter plug is not positioned correctly • PCB board is defect 	<ul style="list-style-type: none"> • Shut down and disconnect all mains • Restart the device • Check if power adapter plug is positioned correctly

5.3 Error Handling



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

6. Manufacturer

 Vitus Beringstraat 1, 7825AH Emmen, 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 Emmen, the Netherlands
 Declares on its own responsibility that the product,

SPL Guard Florida, Serial numbers SPL-FL-###

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.

Emmen, 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