

NUCLEIC ACID PURIFICATION – PURE AND SIMPLE™



Ionic™ Purification System

SITE PREP GUIDE

VERSION 3.0

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Support

For technical information or advice, please contact Purigen Biosystems Support at any time.

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Introduction

This guide contains specifications and guidelines for preparing your site for installation and operation of the Ionic™ Purification System. Prior to installation of your Ionic system, a Purigen Biosystems Field Service Engineer (FSE) will contact you to schedule the install and confirm that your site meets the preparation requirements described in this document. If your system installation has already been scheduled, and you believe your site may not be ready in time, please contact your Purigen Biosystems Field Service Engineer (FSE) for assistance.

- » Laboratory space requirements
- » Electrical requirements
- » Environmental constraints
- » Computing requirements
- » User-supplied consumables and equipment

Additional Resources

The following documentation is available for download from the Purigen Biosystems website.

Table 1: Additional Documentation Resources

Guide Name	Description
Ionic™ Purification System User Guide	Provides an overview of instrument components and software, and procedures for proper instrument maintenance and troubleshooting.
Ionic™ Cells to Pure DNA Kit	Provides steps to use the Protocol and instructions for the Cells to Pure DNA Kit.
Ionic™ FFPE to Pure DNA Kit	Provides steps to use the Protocol and instructions for FFPE to Pure DNA Kit.

Delivery and Installation

Following your purchase of an Ionic system, a Purigen Biosystems representative will contact you to confirm receipt of your order and provide an early estimate of delivery. Prior to delivery, a Purigen Biosystems FSE will contact you to schedule the installation.

The Ionic system will be shipped to you directly. In this case, you will receive shipment tracking information from Purigen Biosystems. Inspect the packages containing your Ionic system and report any signs of damage or rough handling to your Purigen Biosystems Support.



IMPORTANT Do not unpack the instrument prior to installation. The system must be unpacked by a Purigen Biosystems FSE during installation.



CAUTION Only Purigen Biosystems personnel can unpack, install, or move the instrument. Mishandling of the instrument can affect the alignment or damage instrument components.



CAUTION After your Purigen Biosystems representative has installed and prepared the instrument, do not relocate the instrument. Moving the instrument improperly can affect the alignment and compromise data integrity. If you want to relocate the instrument, contact your Purigen Biosystems representative.

Box Dimensions and Contents

The Ionic system is shipped in a double-wall corrugated fiberboard box with a designer tray with full overlap, poly straps and hand holds. Use the following dimensions to determine the minimum door width required to accommodate the shipping container.

Table 2: Box Dimensions

Measurement	Box Dimensions
Height	62.7 cm (24.7 in.)
Width	47.2 cm (18.6 in.)
Depth	55.1 cm (21.7 in.)
Weight	29.0 kg (64 lbs.)

The box contains the instrument along with the following components:

- » 1 Power Cable
- » 1 Leveling Plate

Laboratory Requirements

This section provides requirements and guidelines to set up your lab space for the Ionic system properly. For more information, see "[Environmental Considerations](#)" on page 11.

General Requirements

- » Adequate floor space near the installation site to accommodate the unpacking and unboxing of system components.
- » Adequate clearance around the instrument for operator and service access.
- » Access to receptacle for power.
- » Rigid table or benchtop with the appropriate footprint and construction required to minimize unwanted vibration or instability.
- » Adequate ventilation to accommodate heat output for all devices in the laboratory where system will be used.
- » Adequate management of the laboratory environment to minimize fluctuations in temperature and humidity.



Instrument Dimensions

Figure 1: Instrument Dimensions with Leveling Plate (Front)

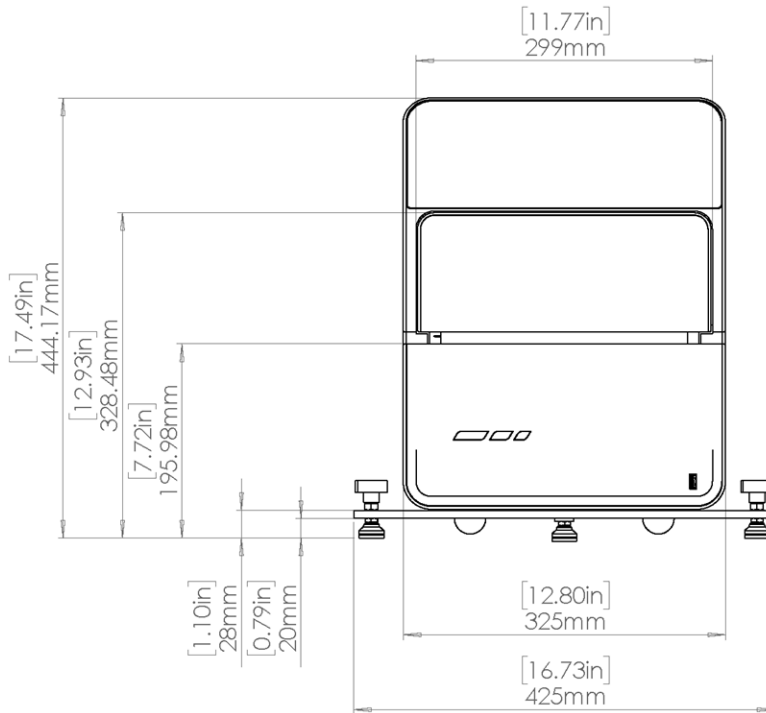
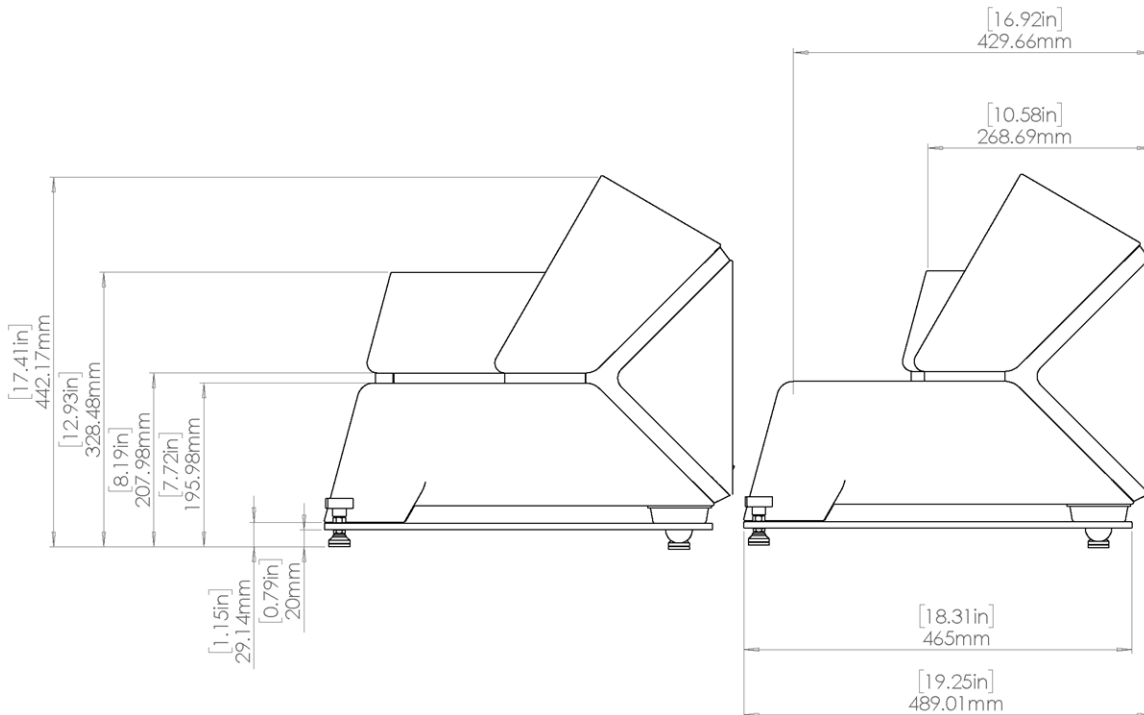


Figure 2: Instrument Dimensions with Leveling Plate (Side)





The Ionic system must be placed on a leveling platform which is provided by Purigen Biosystems. The leveling platform minimally increases the overall dimensions and weight.

The Ionic system has the following dimensions upon installation:

Table 3: Measurement with Leveling Plate

Measurement (with leveling plate)	Instrument Dimensions
Width	43 cm (16.9 in.)
Depth	52 cm (20.5 in.)
Height	45 cm (17.7 in.)
Weight	24.5 kg (54.0 lbs.)

Placement Requirements

Select the installation location for your Ionic system prior to scheduled installation. The Ionic system must be positioned to allow access to the power switch and power outlet, for proper ventilation, and for servicing the instrument.

- » Make sure that you can reach around the left-side of the instrument to turn on or turn off the power switch on the back panel adjacent to the power cord.
- » Position the instrument so that personnel can quickly disconnect the power cord from the outlet.
- » The instrument must be accessible from all sides using the following minimum clearance dimensions:

Table 4: Instrument Clearance Requirements

Access	Minimum Clearance
Sides	Allow at least 35 cm (14 in.) empty bench space to the left-hand or right-hand side of the instrument for pipettes, pipette tips, reservoir, and keyboard.
Rear	Allow at least 10.16 cm (4.0 in.) behind the instrument.
Top	Allow at least 2 cm (0.79 in.) above the instrument. If the instrument is positioned under a shelf, make sure that the minimum clearance requirement is met.



CAUTION If you need to relocate the Ionic system, contact your Purigen Biosystems representative. Moving the instrument improperly can impact the alignment and compromise data integrity.



CAUTION Heat generated by the instrument is expelled as hot air from the rear of the instrument, which must not be blocked by any object closer than 10 cm to avoid potentially dangerous overheating.

Lab Bench Guidelines

Purigen Biosystems recommends placing the instrument on a fixed lab bench or table capable of supporting an instrument weighing 24.5 kg (54.0 lbs.) and with enough surface area to encompass the instrument and provide adequate workspace for operators. Use of mobile tables or benches with casters should be avoided.



NOTE Lysate preparation can occur on empty bench space, a separate benchtop, or in a BSL hood.

Vibration Guidelines



CAUTION The Ionic system is sensitive to vibrations.

Use the following guidelines to minimize vibrations during runs and ensure optimal performance:

- » Place the instrument on a sturdy, immobilized, surface that is isolated from nearby equipment or designed to suppress the transmission of vibration from nearby equipment.
- » Do not place other equipment on the bench that produces vibrations, such as a shaker, vortexer, centrifuge, freezer, or instruments with heavy fans.
- » Do not install the instrument near frequently used doors. Opening and closing of doors might induce vibrations.
- » Do not install a keyboard tray that hangs below the bench.
- » Do not touch the instrument or open the reagent compartment during operation.
- » Do not place objects on top of the instrument.

Electrical Requirements

This section lists power specifications and describes electrical requirements for your facility.

Power Specifications

Table 5: Instrument Power Specifications

Type	Specification
Line Voltage	110 - 120 VAC, 60 Hz, 2.5 A
Power Consumption	300 Watts

Recommendations

The following practices are recommended to ensure safe operation of the Purigen Biosystems Ionic system:

- » The instrument should be plugged into a receptacle on a dedicated circuit with proper voltage, amperage and grounding.
- » A power line regulator is *required* if the voltage fluctuates in excess of +/- 10% of the normal voltage.
- » A surge protector is *recommended* in areas with frequent electrical storms or near electrically “noisy” devices such as refrigerators or centrifuges.
- » Instrument must be placed less than 2 meters from a power outlet.
- » The power outlet must be accessible at all times for safety.



Power Cords

Hazardous voltages are removed from the instrument only when the power cord is disconnected from the AC power source.

The table below lists the specifications for the power cord included with the instrument.

Table 6: Instrument Power Cord Specifications

Specification	North America
Current Rating	10 A
Voltage Rating	125 VAC
Input Connection 1	NEMA 5-15P
Input Connection 2	IEC 320-C13
Cord Length	6.56' (2.00m)
Cord Type	SJT



WARNING Never use an extension cord to connect the instrument to a power supply.

Fuses

The Ionic system contains no user-replacable fuses.

Uninterruptible Power Supply

Purigen Biosystems recommends the use of a user-supplied uninterruptible power supply (UPS). Purigen Biosystems is not responsible for runs affected by interrupted power regardless of whether the instrument is on a UPS. Standard generator-backed power is often not uninterruptible and a brief power outage occurs before power resumes, which interrupts a run.

Purigen Biosystems recommends the use of a UPS rated at least 1500VA/750W with a total capacity of 300Wh to avoid loss of sample and materials during a power outage (APC BX1500M 1500VA Back-UPS Pro, or similar).

Product Certifications and Compliance

The Ionic Purification System is certified to the following standards:

- » UL 61010-1, 3rd Edition
- » CAN/CSA C22.2 No. 61010-1-12, 3rd Edition
- » Subpart B of Part 15 of FCC Rules for Class A digital devices
- » ICES-003, Issue 6



Environmental Considerations

The Ionic Purification System is designed to operate within the following environmental conditions:

Table 7: Operating Environment Specifications

Operating Environment	Specification
Temperature	Maintain a lab temperature of 15°C – 25°C. This temperature is the operating temperature of the instrument.
Humidity	Maintain a non-condensing relative humidity between 30–70%.



Pre-Installation Checklist

- » A specific installation site for the system has been selected, is available, and conforms with the requirements specified above
- » A primary and secondary operator of the Ionic system has been identified, and contact information has been provided to your Purigen Biosystems Field Service Engineer (FSE)
- » Primary Operator Secondary Operator

	Primary Operator	Secondary Operator
Name		
Email		
Phone		

- » The primary and secondary operators will be available on the day of system installation to attend the installation and system training
- » Customer-supplied materials listed above are available within arm’s length of the installation site
- » Lysate preparation can occur on a benchtop or in a BSL hood

If at the time of scheduled installation the FSE determines that one or more checklist items are incomplete, it may be necessary to re-schedule the installation for another time, and you may be responsible for additional costs.

A Purigen Biosystems FSE will contact your responsible IT person prior to your scheduled installation to ensure that your site is ready and that all checklist items have been completed. Your Field Application Specialist will contact the operator trainees prior to your scheduled installation.



Acknowledgment and Authorization

Please sign and return this form to support@purigenbio.com to confirm that site preparations are complete. Upon receipt, we will return our confirmation of receipt and acknowledgment to arrange installation.

I, _____ agree that I am authorized to approve installation of Ionic Purification System and I agree to have fulfilled all the requirements stated above.

Name (Signature)	
Name (Print)	
Date	
Position/Title	

For internal Purigen Biosystems support team use only:

I, _____ agree that I have received and approved installation of Ionic system.

Name (Signature)	
Name (Print)	
Date	
Position/Title	
Address	Purigen Biosystems, Inc. 5700 Stoneridge Drive, Suite 100 Pleasanton, CA 94588