MINI SHAKING INCUBATORS

SHEL LAB®

110 – 120 Voltage

230 Voltage

Installation - Operation Manual

SSI2 SSI2-2

Warning: This product contains chemicals, including triglycidyl isocyanurate, known to the State of California to cause cancer as well as birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

¡Advertencia! Este producto contiene sustancias químicas, incluido el triglicidil isocianurato, que el estado de California sabe que causa cáncer, así como defectos de nacimiento u otros daños reproductivos. Para obtener más información, visite www.P65Warnings.ca.gov**.**

Avertissement! Ce produit peut vous exposer à des produits chimiques, dont l'isocyanurate de triglycidyle, reconnu par l'État de Californie pour provoquer le cancer, des anomalies congénitales ou d'autres problèmes de reproduction. Pour plus d'informations, visitez le site www.P65Warnings.ca.gov

Mini Shaking Incubator

110 – 120 Voltage

230 Voltage

Part Number (Manual): 4861655

Revision: July 22, 2019

SHELDON MANUFACTURING.INC

SHEL LAB is a brand of Sheldon Manufacturing, INC, an ISO 9001 certified manufacturer.

ISO 9001:2015 CERTIFIED

Safety Certifications

Safety tested Production monitored TÜV SÜD C US

CE

These units are CUE listed by TÜV SÜD as orbital shaking incubators for professional, industrial or educational use where the preparation or testing of materials is done at an ambient air pressure range of 22.14 – 31.3 inHg (75 – 106 kPa), and no flammable, volatile or combustible materials are being heated.

These units have been tested to the following requirements:

CAN/CSA C22.2 No. 61010-1:2012
CAN/CSA C22.2 No. 61010-2-010 + R:2009
UL 61010-1:2004 + R:2005-07 + R:2008-10
UL 61010A-2-010:2002
UL 61010-1:2012
EN 61010-1:2010
EN 61010-2-010:2003

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INTRODUCTION

Thank you for purchasing a SHEL LAB incubator. We know you have many choices in today's competitive marketplace when it comes to constant temperature equipment. We appreciate you choosing ours. We stand behind our products and will be here for you if you need us.

READ THIS MANUAL

Failure to follow the guidelines and instructions in this user manual may create a protection impairment by disabling or interfering with the unit safety features. This can result in injury or death.

Before using the unit, read the manual in its entirety to understand how to install, operate, and maintain the unit in a safe manner. Ensure all operators are given appropriate training before the unit begins service.

Keep this manual available for use by all operators.

SAFETY CONSIDERATIONS AND REQUIREMENTS

Follow basic safety precautions, including all national laws, regulations, and local ordinances in your area regarding the use of this unit. If you have any questions about local requirements, please contact the appropriate agencies.

SOPs

Because of the range of potential applications this unit can be used for, the operator or their supervisors must draw up a site-specific standard operating procedure (SOP) covering each application and associated safety guidelines. This SOP must be written and available to all operators in a language they understand.

Intended Applications and Locations

These incubators are intended for constant temperature, non-humidified microbiological incubation applications in professional, industrial, and educational environments. The units are not intended for use at hazardous or household locations.

Power

Your unit and its recommended accessories are designed and tested to meet strict safety requirements.

- The unit is designed to connect to a power source using the specific power cord type shipped with the unit.
- Always plug the unit power cord into a protective earth grounded electrical outlet conforming to national and local electrical codes. If the unit is not grounded properly, parts such as knobs and controls can conduct electricity and cause serious injury.
- Do not bend the power cord excessively, step on it, or place heavy objects on it.
- A damaged cord can be a shock or fire hazard. Never use a power cord if it is damaged or altered in any way.
- Use only approved accessories. Do not modify system components. Any alterations or modifications to your unit not explicitly authorized by the manufacturer can be dangerous and will void your warranty.

Contacting Assistance

Phone hours for Sheldon Technical Support are 6 am – 4:30 pm Pacific Coast Time (west coast of the United States, UTC -8), Monday – Friday. Please have the following information ready when calling or emailing Technical Support: the **model number, serial number,** and **part number** (see page 12).

support@sheldonmfg.com
1-800-322-4897 extension 4
(503) 640-3000 extension 4
FAX: (503) 640-1366

Sheldon Manufacturing, INC.
P.O. Box 627
Cornelius, OR 97113
USA

Manufacturing Warranty

For information on your warranty and online warranty registration please visit:

sheldonmanufacturing.com/warranty

Engineering Improvements

Sheldon Manufacturing continually improves all of its products. As a result, engineering changes and improvements are made from time to time. Therefore, some changes, modifications, and improvements may not be covered in this manual. If your unit's operating characteristics or appearance differs from those described in this manual, please contact your SHEL LAB dealer or customer service representative for assistance.

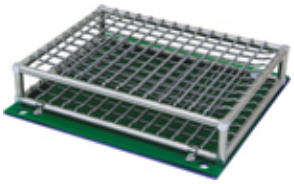
Optional Shaker Platforms and Accessories

Alternate styles of shaking platform tops and shaker accessories must be purchased separately. Flask clamps, stationary tube racks, or plate clamps can be used to provide greater stability for sample containers.

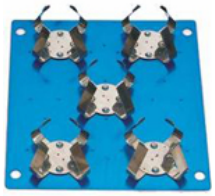
Note: Magnetic flask clamps can only be used with the magnetic shaking platform.

Magnetic Flask Clamp

Magnetic Shaking Platform Top and Test Tube Rack



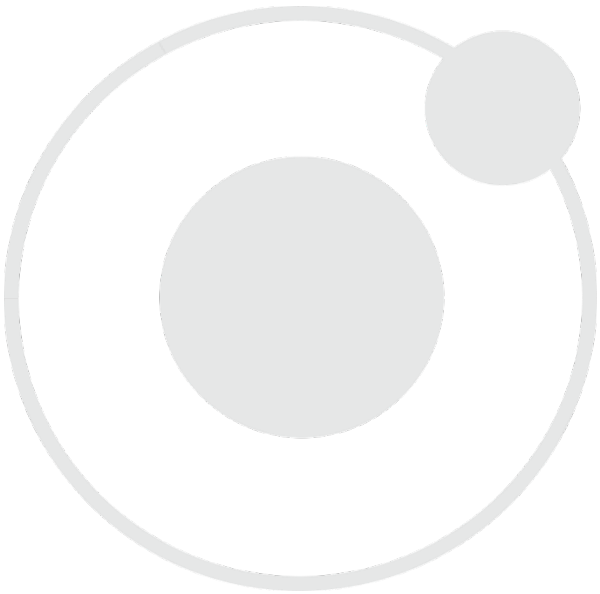
Universal Spring Platform Top



Dedicated Clamp Platform Top

The manufacturer offers for sale several types of shaking platform tops and accessories compatible with these incubator models. See page 37 for ordering information.

INTRODUCTION



INSPECT THE SHIPMENT

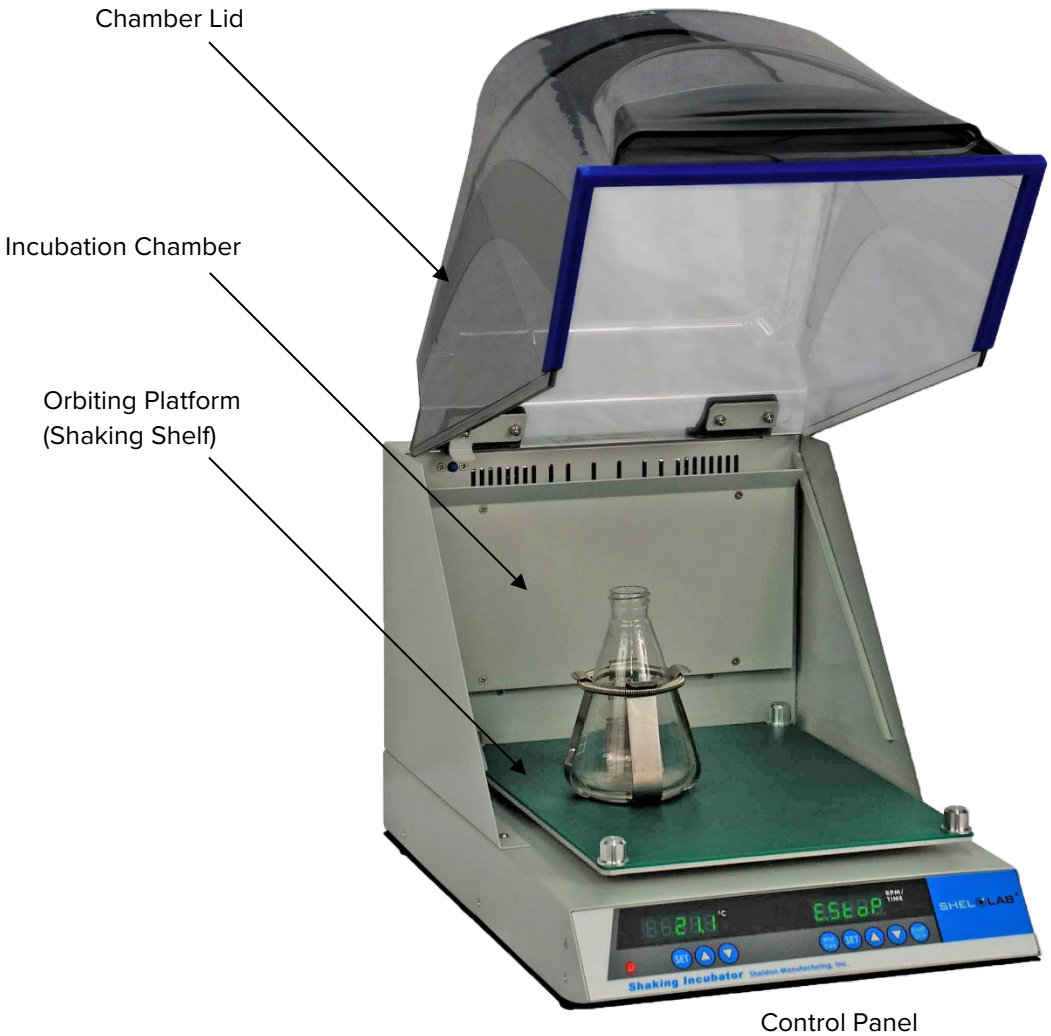
- When a unit leaves the factory, safe delivery becomes the responsibility of the carrier.
- **Damage sustained during transit is not covered by the manufacturing defect warranty.**
- Save the shipping carton until you are certain that the unit and its accessories function properly.

When you receive your unit, inspect it for concealed loss or damage to its interior and exterior. If you find any damage to the unit**, follow the carrier's procedure for claiming damage or loss**.

1. Carefully inspect the shipping carton for damage.
2. Report any damage to the carrier service that delivered the unit.
3. If the carton is not damaged, open the carton and remove the contents.
4. Inspect the unit for signs of damage. Use the orientation images in this chapter as reference.
5. The unit should come with an Installation and Operation Manual.
6. Verify that a power cord has been included with the incubator.
7. Carefully check all packaging for accessory items before discarding.

ORIENTATION PHOTOS

SSI2 & SSI2-2



Back of Unit


Manufactured by
SHELDON MANUFACTURING, INC.
300 N. 26TH
CORNELIUS, OR 97113
AMPS: 3.0
VOLTS:110-120 V~
Hz: 50/60
SSI2
Unit Data Plate
Power Switch
Power Cord

RECORDING DATA PLATE INFORMATION

Record the unit **model number**, **serial number**, and **part number** below for future reference. Tech Support needs this information to provide accurate help during support calls and emails.

- The data plate is located on the back of the unit, next to the power cord inlet.

MODEL NO:	
SERIAL NO:	
PART NO:	

INSTALLATION CHECKLIST

For installing the unit in a new workspace location.

Pre-Installation

- ✓ Check that the required ambient conditions for the unit are met, page 14.
- ✓ Check that the spacing clearance requirements are met, page 14.
    - Unit dimensions may be found on page 35.
- ✓ Check that a suitable electrical outlet and power supply is present, page 15.

Install the incubator in a suitable workspace location

- ✓ Review the lifting and handling instructions, page 16.
- ✓ Install the incubator in its workspace location, page 16.
- ✓ Make sure the incubator is level, page 16.

Set up the incubator for use

- ✓ Clean and disinfect the unit (recommended), page 17.

Required Ambient Conditions

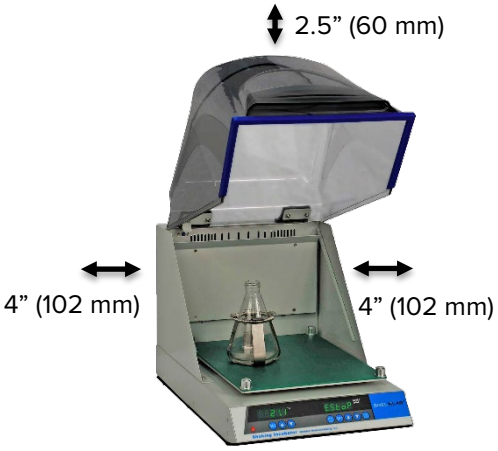
These units are built for use indoors at room temperatures between **15°C and 30°C (59°F and 86°F)**, at no greater than **80% Relative Humidity** (at 25°C / 77°F). Operating outside these conditions may adversely affect the unit temperature performance.

When selecting a location to install the unit, consider all environmental conditions that can adversely impact its temperature performance. These include:

- Proximity to ovens, autoclaves, and any device that produces significant radiant heat
- Heating and cooling vents or other sources of fast-moving air currents
- High-traffic areas
- Direct sunlight

Required Clearances

These clearances are required to provide air flows for ventilation and cooling.



4 inches (102 mm) of clearance is required on the sides and back.

2.5 inches (60 mm) of headspace clearance is required between the top of the unit and any overhead partitions.

Allow sufficient overhead space for opening the lid.

The power switch is located on the back of the unit; allow sufficient space for reaching the switch.

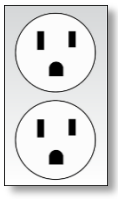
POWER SOURCE REQUIREMENTS

When selecting a location for the unit, verify each of the following requirements is satisfied:

Power Source: The power source must match the voltage and amperage requirements listed on the unit data plate. These units are intended for **50/60 Hz** applications at the following voltages and amperages:

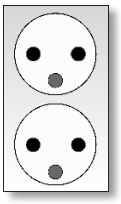
Model	Voltage	Amperage
SSI2	110 – 120	3.0
SSI2-2	230	1.5

110-120V



Standard NEMA 5-15R wall socket

230V



Standard CEE7/7 wall

- The wall power source must be protective earth grounded and single phase.
- **The unit may be damaged if the supplied voltage varies by more than 10% from the data plate rating.**
- Use a separate circuit to prevent loss of the unit due to overloading or circuit failure.
- **The recommended wall circuit breaker for 110 – 120V units is 15 amps.**
- **The recommended wall circuit breaker for 230V units is 20 amps.**
- The wall power source must conform to all national and local electrical codes.

Power Cords:

The unit must be positioned so that all end-users can quickly unplug the power cord in the event of an emergency.

- Always use this cord or an identical replacement.

Fuses

SSI2 units ship with a single fuse installed in the power cord inlet.

- The fuse must be installed and intact for the unit to operate.
- Always find and fix the cause of a blown fuse prior to putting the unit back into operation.

SSI2-2 units ship with two fuses installed in the power cord inlet and in a fuse holder adjacent to the inlet.

LIFTING AND HANDLING

The unit is heavy. Use appropriate lifting devices sufficiently rated for these loads. Follow these guidelines when lifting the unit.

- Lift the unit only from its bottom surface.
- Doors, handles, and knobs are not adequate for lifting or stabilization.
- Restrain the unit completely while lifting or transporting so it cannot tip.
- Remove all moving parts, such as shelves and trays, and lock the lid in the closed position during transfers to prevent shifting and damage.

LEVELING

The unit must be level and stable for safe operation.

INSTALL THE INCUBATOR

Install the unit in a workspace location that meets the criteria discussed in the previous entries of the Installation chapter.

DEIONIZED AND DISTILLED WATER

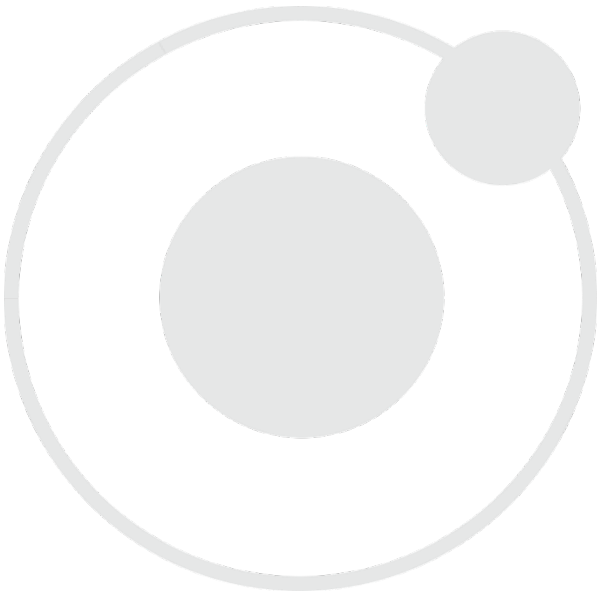
Do not use deionized water to clean the unit, even if DI water is readily available in your laboratory.

- Use of deionized water may corrode metal surfaces and **voids the manufacturing warranty**.
- The manufacturer recommends the use of distilled water in the resistance range of 50K Ohm/cm to 1M Ohm/cm, or a conductivity range of 20.0 uS/cm to 1.0 uS/cm, for cleaning applications.

INSTALLATION CLEANING AND DISINFECTION

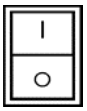
The manufacturer recommends cleaning and disinfecting the unit chamber.

- The unit was cleaned at the factory but may have been exposed to contaminants during shipping.
- Please see the Cleaning and Disinfecting procedure on page 33 in the User Maintenance chapter for information on how to clean and disinfect without damaging the unit.

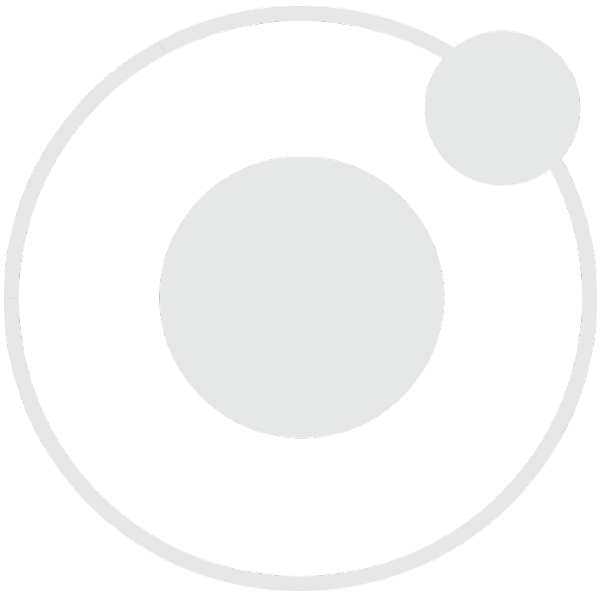


GRAPHIC SYMBOLS

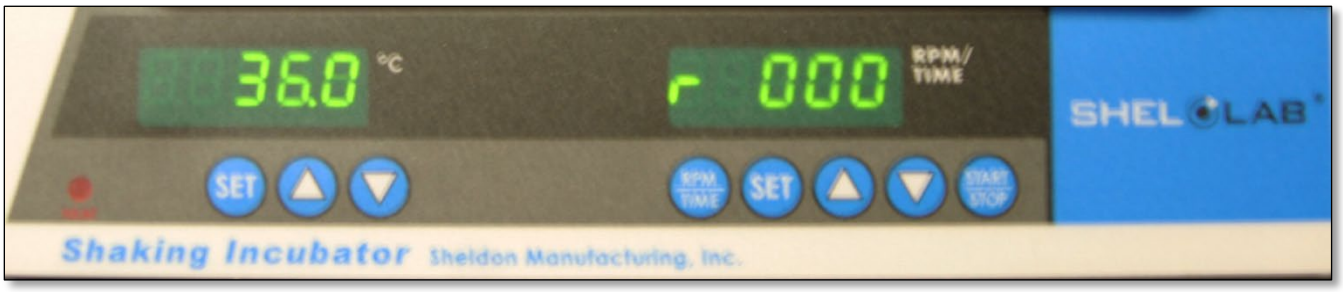
The unit is provided with graphic symbols on its exterior. These identify hazards and adjustable components as well as important notes in the user manual.

Symbol	Definition
	Consult the user manual Consulter le manuel d'utilisation
	Caution Hot Surface Attention surface chaude
	AC Power Repère le courant alternatif
	I/ON O/OFF I indique que l'interrupteur est en position marche. O indique que le commutateur est en position d'arrêt.
	Protective earth ground Terre électrique
	Adjusts UP and DOWN Ajuster le haut et vers le bas
	Potential shock hazard Risque de choc électrique
	Recycle the unit. Do not dispose of in a landfill. Recycler l'unité. Ne jetez pas dans une décharge

SYMBOLS



CONTROL OVERVIEW



Control Panel

Main Power Switch (Back of Unit)

Power is supplied when the switch is in the (I) ON position.

Heating Activated

The Heating Activated light illuminates when the incubator powers the chamber heating elements.

Set Temperature Display and Controls

Shows the current chamber temperature. The **SET** button is used to access the Temperature Set Point adjustment mode and confirm the selected set point.

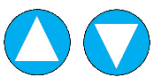
The **Up** and **Down** arrow buttons are used to input the temperature set point.

RPM / TIME Display and Controls

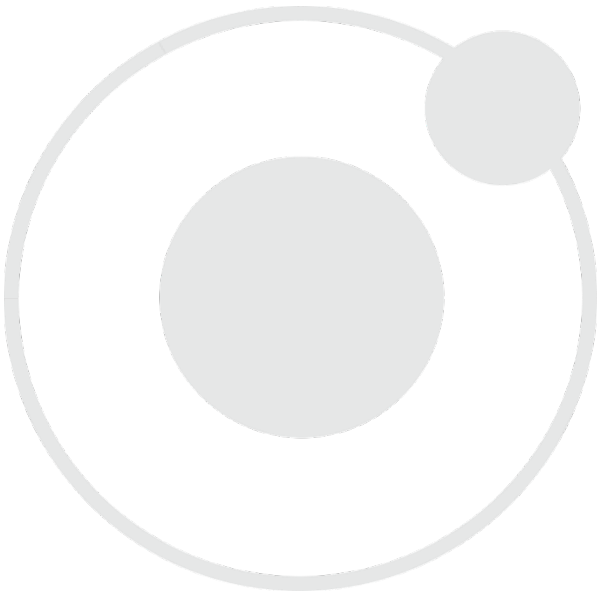
Shows the current speed of the shaking platform in rotations per minute (RPM), or the amount of time remaining on a timed shaking application. The **RPM / TIME** button is used to change display modes.

The **SET** button accesses the RPM / TIME set point adjustment modes and confirms the selected set points.

The **Up** and **Down** arrow buttons adjust the RPM / TIME set points, depending on which mode is activated.



The **START / STOP** button initiates or interrupts a timed shaking process or turns the shaking platform on or off.



THEORY OF OPERATION

Shaking Platform

The unit is equipped with an orbital, non-slip shaking platform providing circular agitation to samples. The orbital shaking speed is programmed by using the RPM Set Point controls on the front control panel.

Shaking Platform Timer

The incubator timer function allows the end-user to program the shaking platform to agitate for a set amount of time. When the timer reaches zero, the platform movement stops.

Achieving and Maintaining the Temperature Set Point

When powered, the incubator heats to and then maintains a user-selected target set point in the incubation chamber. The incubator senses the chamber air temperature using a solid-state probe. When the incubator detects that the chamber temperature has dropped below the target set point, it pulses power to the heating element inside the air duct on the back wall of the chamber.

A fan circulates air within the rear chamber wall, distributing heat and providing a temperature uniformity superior to direct radiant heating.

The incubator uses Proportional – Integral – Derivative (PID) control to avoid significantly overshooting the set point. This means the rate of heating slows as the chamber temperature approaches the target temperature. If the chamber temperature is above the set point, the incubator uses minimum heating to control the rate of cooling and avoid dipping below the set point.

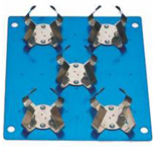
Additionally, the PID loops optimize heating rates for the temperature environment around the incubator. If the incubator is operating in a cool room, it will increase the length of heating pulses to compensate. Likewise, when operating in a warm room the incubator uses shorter pulses. If the ambient temperature conditions change significantly, there may be minor over or undershoots as the incubator adapts.

SSI incubators rely on natural heat radiation for cooling. These units can achieve a low-end temperature just above the ambient room temperature plus the internal waste heat of the unit.

PUT THE INCUBATOR INTO OPERATION

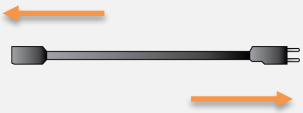
Perform the following steps and procedures to put the unit into operation after installing it in a new workspace environment.

Optional: Install an alternate shaking platform and other accessories.



- See page 7 for information about alternate shaking platforms and other accessories.
- See page 26 for instructions on how to install an alternate platform.

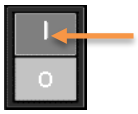
1. Plug in the power cord



Attach the power cord that came with the unit to the power inlet receptacle on the back of the incubator.

Plug the power cord into the workspace electrical supply outlet.

2. Power the incubator



Place the incubator **Power Switch** in the ON (I) position.

- The Temperature and RPM / Time displays will illuminate.

3. Set the Temperature Set Point

Set the Temperature Set Point to your incubation application temperature.

- See page 27.

Continued on next page

Continued from previous page

4. Set the Shaker Speed

Set the RPM rate for your application.

- See page 28.

Optional: Set the Timer

- See page 29.

5. Allow the incubator to heat soak for a minimum of 10 minutes

Run the unit for at least 10 minutes undisturbed with the lid closed prior to loading samples

The incubator is now ready for use.

- You may **Load Samples**, page 30.

End of Procedure

Optional Platform Top Installation

The incubator comes with a flat, non-slip rubber mat attached to the base shaking platform for low-speed operations with common vessels, including trays and dishes. Other platform tops are available as accessories.

To install an accessory shaking platform top:

1. Unscrew the four aluminum thumb screws and washers from the corners of the shaking platform.
    - Do not remove the screws in the center of the base platform; these attach the base platform to the shaking mechanism.
2. Remove the green rubber mat from the base platform.
3. Clean any dirt or debris from the base platform.
4. Place the desired platform top so that the corner holes are aligned.
5. Place the washers over the corner holes and screw in the 4 thumb screws by hand.
    - Make sure the platform top is securely fastened.
    - Do not overtighten.

SET THE TEMPERATURE SET POINT

The incubator comes set to a default temperature set point of 37.0°C. Perform the steps below to change the set point to your process or application temperature.

1. Access the Temperature Set Point Adjustment mode

Push the SET button beneath the temperature display.

- The display will show the flashing, adjustable temperature set point.

Initial Set Point

2. Set the Temperature Set Point

Use the **Up** or **Down** arrow buttons to change the temperature set point.

New Set Point

3. Save the new Temperature Set Point

Push the SET button to save the new set point.

- The display will stop flashing, and the set point is now saved in the controller.
- The chamber will now automatically heat or passively cool to match your set point.
- The display will revert to showing the current chamber air temperature.

Heating to New Set Point

Note: If the SET button is not pushed, the incubator will revert to the previous temperature setting.

End of Procedure

Note: Door openings will interrupt the shaking process and the RPM/TIME display will show “EStoP”. Closing the door will briefly show “rStoP” before the platform resumes shaking.

SET THE SHAKER SPEED (RPM)

Perform the steps below to adjust the RPM set point.

1. Change the display to show the current RPM

Verify the lid is completely closed.

Push the RPM / TIME button repeatedly until the display shows the current RPM setting.

Initial Set Point

2. Access the RPM Set Point Mode

Push the SET button beneath the RPM / TIME display.

- The display will show the flashing, adjustable RPM set point.

Initial Set Point

3. Adjust the RPM Set Point

Use the **Up** or **Down** arrow buttons to adjust the shaking speed to a value between 30 – 300 RPM.

New Set Point

4. Save the RPM Set Point

Push the SET button to save the new RPM set point.

- The display will stop flashing and briefly show “rSAVE”. The set point is now saved in the controller.
- The display will revert to showing the current RPM value.

Note: If the SET button is not pushed, the incubator will revert to the previous RPM setting.

End of Procedure

Note: If the START / STOP button is pushed during a timed shaking process, the shelf will cease shaking and the timer will be paused. Push the button again to resume the shaking process and the timer countdown.

SET THE TIMER (TIME)

Perform the steps below to initiate a timed shaking process.

1. Change the display to the Timer menu

Verify that the lid is completely closed.

Push the RPM / TIME button repeatedly until the display shows “t 00.00”.

2. Access the Timer Set Point Mode

Push the SET button beneath the RPM / TIME display.

- The display will show the flashing, adjustable timer value.

Initial Value

3. Program the number of hours

Use the **Up** or **Down** arrow buttons to select the desired number of hours, up to a maximum of 99 hours.

Push the SET button to save the hours value.

1 Hour Set

4. Program the number of minutes

Use the **Up** or **Down** arrow buttons to select the desired number of minutes, up to a maximum of 59 minutes.

30 Minutes Set

Push the SET button to save the minutes value.

- The display will stop flashing and show “tSAVE”.

Note: The incubator will **not** initiate a timed shaking process until the START / STOP button is pushed.

End of Procedure

SHEL LAB®

LOADING SAMPLES

Note: If you are using the magnetic shaking platform, attach magnetic clamps or racks to the platform surface to secure your samples.

The manufacturer strongly recommends waiting at least **10 minutes** after putting the incubator in operation before loading samples. This helps safeguard against temperature instability.

- Verify that sample containers are properly stabilized or secured with shaker accessories.
- Properly space samples to allow for maximum air circulation and a higher degree of temperature uniformity.
    - Proper spacing also decreases the chance of condensate forming in the incubator when operating with a large number of samples in the chamber.

Note: If the START / STOP button is pushed during a timed shaking process, the shelf will cease shaking and the timer will be paused. Push the button again to resume the shaking process and the timer countdown.

INITIATE SHAKING

Begin running the shaking platform at the previously selected RPM set point.

Without Timer

1. Change the display to the RPM menu

Push the RPM / TIME button if the display is not showing the current RPM set point.

Current RPM Set Point

2. Begin the shaking process

Push the Start/Stop button to begin the shaking process.

- The display will return to showing the current RPM speed increasing to the set point.

Increasing to Set Point

With Timer

1. Begin shaking

Perform the steps above to begin the shaking platform.

RPM Set Point

2. Access the Timer menu

Push the RPM / TIME button to change the display to the Timer menu.

- The display should show the current Timer Set Point.

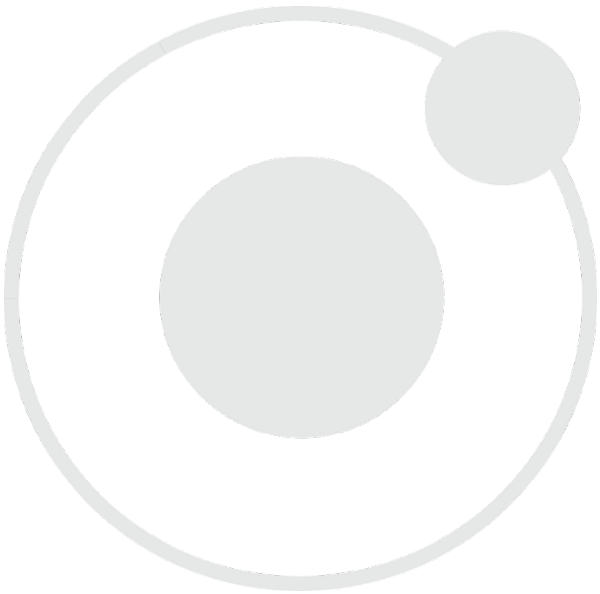
Timer Set Point

3. Begin the timed countdown

Push the START / STOP button to begin the timed countdown.

- When the Timer is finished, the platform will cease shaking.

Timer Finished



Warning: Disconnect this unit from its power supply prior to performing maintenance or services.

Avertissement: Débranchez cet appareil de son alimentation électrique avant d'effectuer la maintenance ou les services.

CLEANING AND DISINFECTING

If a hazardous material or substance has spilled in the unit chamber, immediately initiate your site Hazardous Material Spill Containment protocol. Contact your local Site Safety Officer and follow instructions per the site policy and procedures.

- Periodic cleaning and disinfection are required.
- Do not use spray on cleaners or disinfectants. These can leak through openings and coat electrical components.
- Consult with the manufacturer or their agent if you have any doubts about the compatibility of decontamination or cleaning agents with the parts of the equipment or with the material contained in it.
- Do not use cleaners or disinfectants that contain solvents capable of harming paint coatings or stainless steel surfaces. **Do not use chlorine-based bleaches or abrasives; these will damage the chamber liner.**

Warning: Exercise caution if cleaning the unit with alcohol or flammable cleaners. Always allow the unit to cool down to room temperature prior to cleaning and make sure all cleaning agents have evaporated or otherwise been completely removed prior to putting the unit back into service.

Avertissement: Soyez prudent lorsque vous nettoyez l'appareil avec de l'alcool ou des produits de nettoyage inflammables. Laissez toujours refroidir l'appareil à la température ambiante avant le nettoyage et assurez-vous que tous les produits de nettoyage se sont évaporés ou ont été complètement enlevés avant de remettre l'appareil en service.

Cleaning

Keep the following in mind when cleaning the unit:

- Always disconnect the unit from its power supply.
- Remove all removable accessory components, such as clamps, if permitted by your laboratory protocol.
- Clean the unit with a mild soap and water solution, including all corners.
    - **Do not use an abrasive cleaner**. These will damage metal surfaces.
    - **Do not use deionized water to rinse or clean with.**
    - Take special care when cleaning around the temperature sensor probes in the chamber to prevent damage. Do not clean the probes.
- Rinse with distilled water and wipe dry with a soft cloth.

Disinfecting

When disinfecting the unit:

- Always turn off and disconnect the unit to safeguard against electrical hazards.
- For maximum effectiveness, disinfection procedures are typically performed after cleaning.
- Disinfect the unit chamber using commercially available disinfectants that are non-corrosive, non-abrasive, and suitable for use on painted metal and glass surfaces. Contact your local Site Safety Officer for detailed information on which disinfectants are compatible with your applications.
- If permitted by your protocol, remove all removable interior accessories from the chamber.
- Disinfect all surfaces in the chamber, making sure to thoroughly disinfect the corners. Exercise care to avoid damaging the sensor probes.
- Gas concentrations from evaporating disinfecting agents can inhibit growth or cause metabolic symptoms in microbiological sample populations. Make sure that chlorines, quaternary ammonias, or any other overtly volatile disinfecting agents have been rinsed or otherwise removed from the chamber surfaces, prior to placing samples in the chamber.

When disinfecting external surfaces, use disinfectants that will not damage painted metal, glass, and plastic.

Minimizing Contamination Exposure

Suggestions for minimizing exposure of the incubator chamber to potential contaminants.

- Maintain a high air quality in the laboratory workspaces around the incubator.
- Avoid placing the incubator near sources of air movement such as doors, air vents, or high traffic routes in the workspace.
- Minimize the number of times the incubator lid is opened during normal operations.

Electrical Components

Electrical components do not require maintenance. If the incubator fails to operate as specified, please contact your distributor or **Technical Support** for assistance (please see page 6).

UNIT SPECIFICATIONS

SSI2 units are 110 – 120 voltage units. SSI2-2 units are 230 voltage units. **Please refer to the unit data plate for individual electrical specifications.**

Technical data specified applies to units with standard equipment at an ambient temperature of 25°C and at nominal voltage. The temperatures specified are determined in accordance to factory standard following DIN 12880 respecting the recommended wall clearances of 10% of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in the series. We reserve the right to alter technical specifications at all times.

WEIGHT

Model	Shipping	Net Weight
SSI2	42 lb / 19 kg	39.0 lb / 17.7 kg
SSI2-2	42 lb / 19 kg	39.0 lb / 17.7 kg

DIMENSIONS

In inches

Model	Exterior W × D × H	Interior W × D × H
SSI2	11.3 x 15.8 x 11.5 in	9.5 x 11.0 x 9.5 in
SSI2-2	11.3 x 15.8 x 11.5 in	9.5 x 11.0 x 9.5 in

In millimeters

Model	Exterior W × D × H	Interior W × D × H
SSI2	286 x 400 x 294 mm	235 x 292 x 235 mm
SSI2-2	286 x 400 x 294 mm	235 x 292 x 235 mm

CAPACITY

Volume

Model	Cubic Feet	Liters
SSI2	0.67	17.0
SSI2-2	0.67	17.0

TEMPERATURE

Model	Temp Range	Uniformity	Stability
SSI2	Ambient +5° to 70°C	±0.25% @ 30°C	±0.2° @ 30°C
SSI2-2	Ambient +5° to 70°C	±0.25% @ 30°C	±0.2° @ 30°C

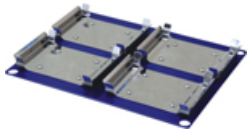
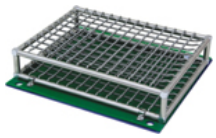
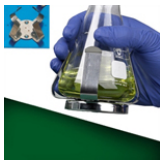
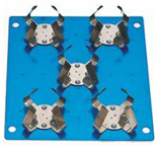
SHAKING PLATFORM

Model	RPM Range	RPM Accuracy	Max Shaker Load
SSI2	30 – 300	±4 RPM	9.0 lb / 4.0 kg
SSI2-2	30 – 300	±4 RPM	9.0 lb / 4.0 kg

POWER

Model	Voltage	Amperage	Frequency
SSI2	110 – 120	3.0	50/60 Hz
SSI2-2	230	1.5	50/60 Hz

Flask Clamp Accessories

Description	Parts Number	Description	Parts Number
Magnetic Flask Clamp, 50ML 5 lb / 2.28 kg	 1150523	Dedicated Platform, 4 Microplates 5 lb / 2.28 kg	 6420504
Magnetic Flask Clamp, 125ML 5 lb / 2.28 kg	 1150512	Universal Spring Platform 5 lb / 2.28 kg	 6420505
Magnetic Flask Clamp, 250ML 5 lb / 2.28 kg	 1150511	Universal Magnetic Platform 5 lb / 2.28 kg	 6420500
Magnetic Flask Clamp, 500ML 5 lb / 2.28 kg	 1150510	Magnetic Tube Rack 15ML x 50ML Conical Tubes 5 lb / 2.28 kg	 1150513
Dedicated Platform, 12 x 125ML Clamps 5 lb / 2.28 kg	 6420503	Magnetic Tube Rack 15ML x 500ML Conical Tubes 5 lb / 2.28 kg	 1150533
Dedicated Platform, 8 x 250ML Clamps 5 lb / 2.28 kg	 6420501	Magnetic Tube Rack 32ML x 15ML Conical Tubes 5 lb / 2.28 kg	 1150532
Magnetic Rack for 3 x 500ML Bottles 5 lb / 2.28 kg	 1150534	Magnetic Microplate Clamp 5 lb / 2.28 kg	 1150538

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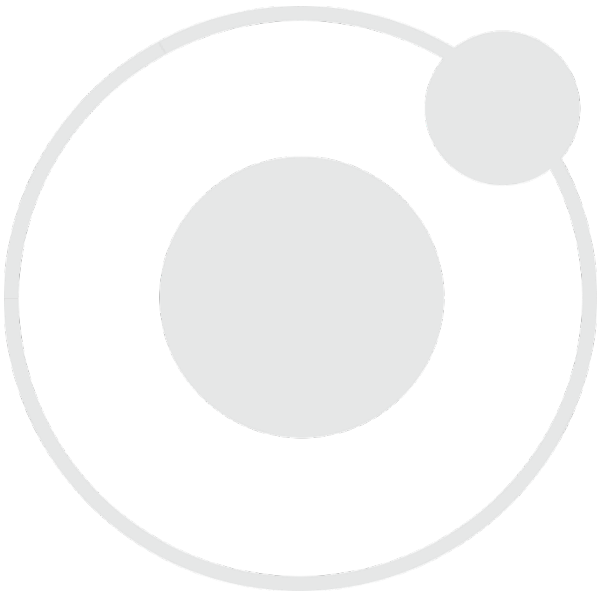
Description	Parts Number	Description	Parts Number
Magnetic Horizontal Tube Rack 12 x 1.5 / 2ML 5 lb / 2.28 kg	 **1150535**	Magnetic Horizontal Tube Rack 2 x 50ML 5 lb / 2.28 kg	 **1150537**
Magnetic Horizontal Tube Rack 4 x 15ML 5 lb / 2.28 kg	 **1150536**		

Ordering

Accessories and replacement parts can be ordered online at **parts.sheldonmfg.com**.

If the required item is not listed online, or if you require assistance in determining which part or accessory you need contact SHEL LAB by emailing parts@sheldonmfg.com or by calling 1-800-322-4897 ext. 4 or (503) 640-3000 ext. 4.

Please have the **model, serial,** and **part** numbers of the unit ready. Tech Support needs this information to match your unit to its correct part.



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