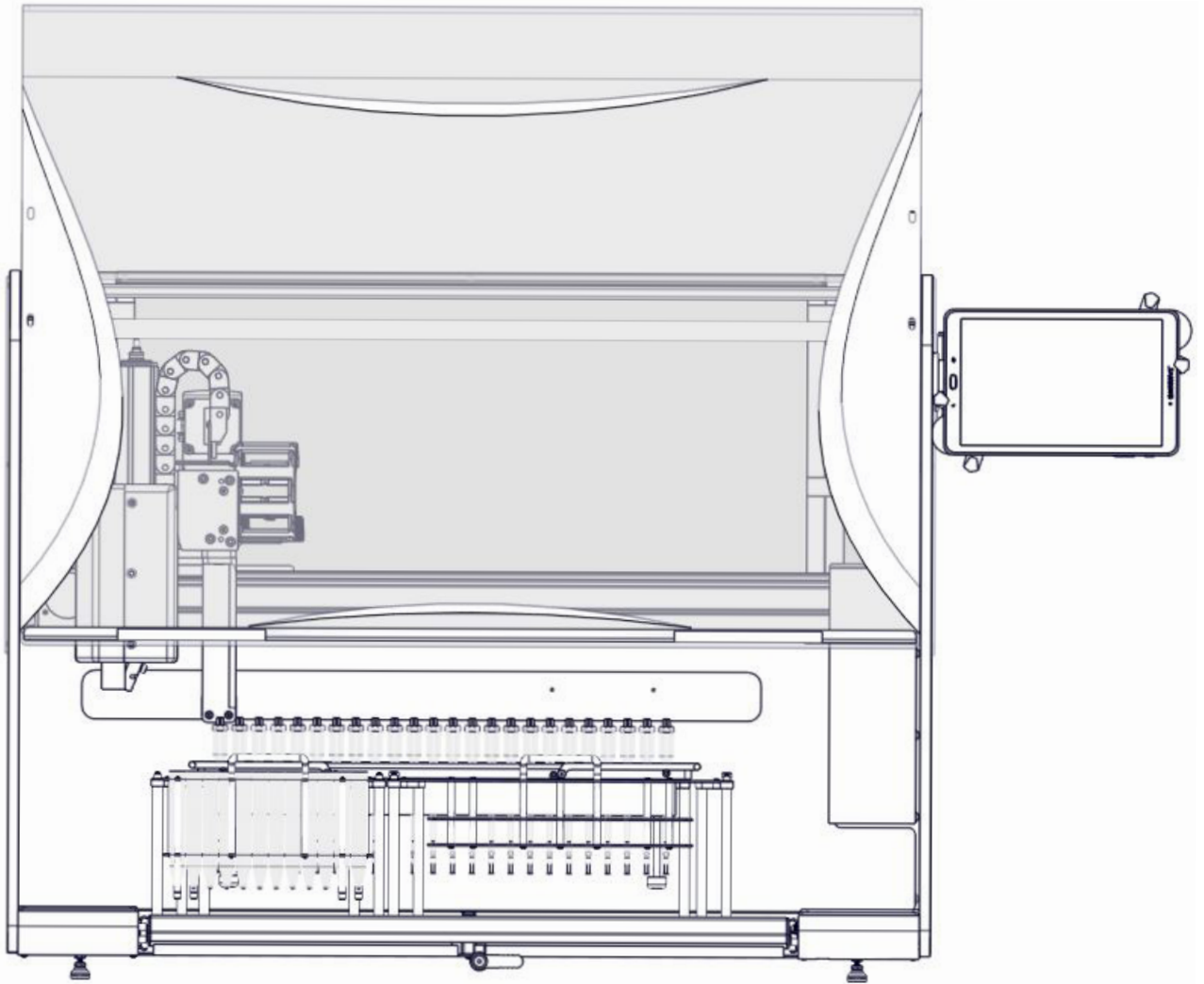


OMNI Prep 96

Automated Homogenizer

User Manual



Data herein has been verified and validated. It is believed adequate for the intended use of the instrument. If the instrument or procedures are used for purposes over and above the capabilities specified herein, confirmation of the validity and suitability should be obtained; otherwise OMNI International does not guarantee results and assumes no obligation or liability. This publication is not a license to operate under, or a recommendation to infringe upon, any process patents.

This product is warranted to be free from defects in material and workmanship for a period of ONE YEAR from the date of delivery. OMNI International will repair or replace and return free of charge any part which is returned to its factory within said period, transportation prepaid by user, and which is found upon inspection to have been defective in materials or workmanship. This warranty does not include normal wear from use; it does not apply to any instrument or parts which have been altered by anyone other than an employee of OMNI International nor to any instrument which has been damaged through accident, negligence, failure to follow operating instructions, the use of electric currents or circuits other than those specified on the plate affixed to the instrument, misuse, or abuse. OMNI International reserves the right to change, alter, modify, or improve any of its instruments without any obligation whatever to make corresponding changes to any instrument previously sold or shipped.

THE FORGOING OBLIGATION IS IN LIEU OF ALL OBLIGATIONS AND LIABILITIES INCLUDING NEGLIGENCE AND ALL WARRANTIES OF MERCHANTABILITY OR OTHERWISE, EXPRESSED OR IMPLIED IN FACT OR BY LAW, AND STATE OUR ENTIRE AND EXCLUSIVE LIABILITY AND BUYERS EXCLUSIVE REMEDY FOR ANY CLAIM OF DAMAGES IN CONNECTION WITH THE SALE OR FURNISHING OF GOODS OR PARTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION, OR OPERATION. OMNI INTERNATIONAL WILL IN NO EVENT BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, AND THEIR LIABILITY UNDER NO CIRCUMSTANCES WILL EXCEED THE CONTRACT PRICE FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.

This product has been engineered for safety; however, basic safety precautions and common sense must always be demonstrated when using any electrical product.

- Use this product only for its intended purpose.
- Keep this product away from heated surfaces.
- **DO NOT** attempt to modify any part of this product.
- **DO NOT** allow the machine to be submerged in any liquid.
- **DO NOT** use in any setting other than an indoor laboratory.
- **DO NOT** use attachments not recommended by the manufacturer.
- **DO NOT** operate the product if it is damaged in any way.
- **DO NOT** operate the product with the safety ground disconnected.
- **DO NOT** modify the plug or cord that is provided.

WARNING: Reduce the risk of unintentional starting; make sure the machine is OFF before plugging into a power supply.

WARNING: Damaged or worn power cords should be repaired or replaced immediately by a qualified electrician.

WARNING: Improper connection of the equipment can result in a risk of electric shock.



WARNING: Improper handling of the unit can result in injury! Always perform a Team Lift, when raising, lowering, or transporting the unit. Team members working together to move the unit should follow the Lifting and Lowering guidelines provided below:

When Lifting from the Ground-Level:

- Position your body as close to the unit as possible.
- Bend your knees and squat down while keeping your torso upright.

- Using both hands, grab and support the unit from underneath and use your legs to slowly lift the unit up, while keeping your back straight.

When Lowering to the Ground-Level:

- Position your body as close to the unit as possible.
- Using both hands, grab and support the unit from underneath.
- While keeping your back straight, carefully lift the unit up and clear it away from the resting surface.
- Bend your knees and squat down with the unit while keeping your torso upright.
- Slowly position the unit onto the ground, while being careful not to pinch your fingers underneath.

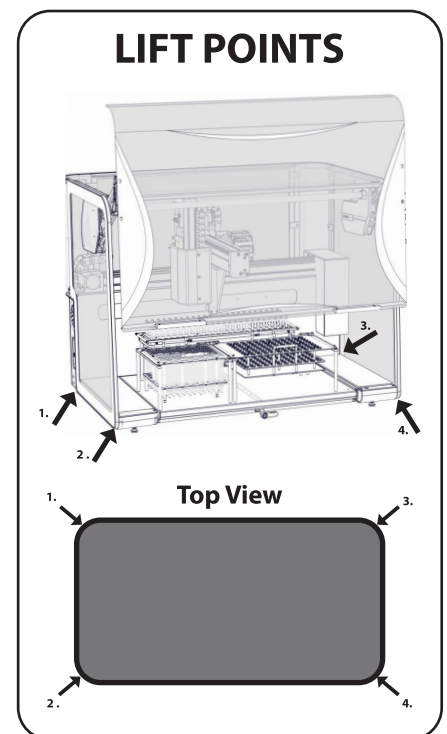
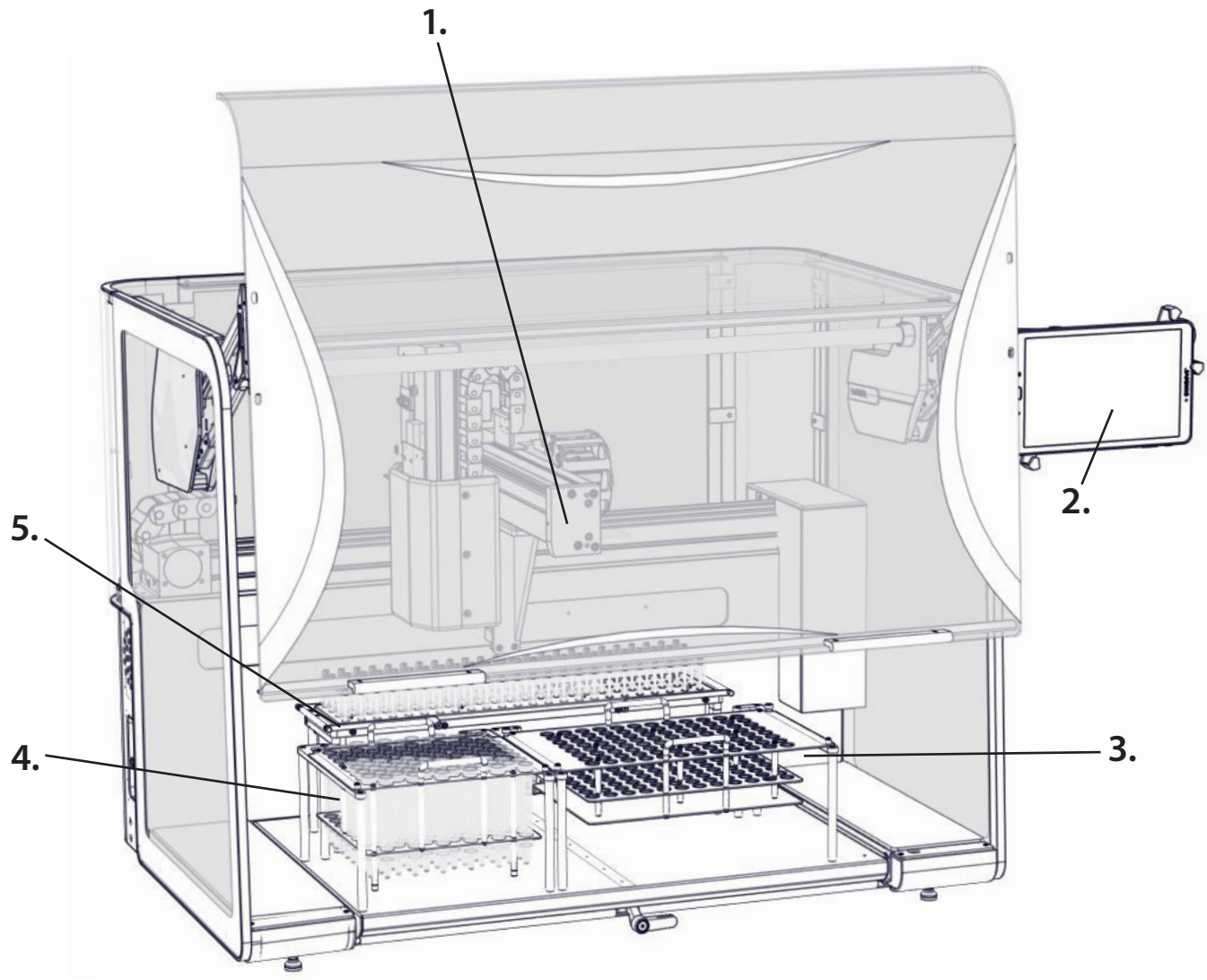


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Overview



1. End Effector Homogenizer

2. Touchscreen Controller

3. 96 Position Sample Rack

4. Tip Rack for Dirty Probes 96 Position

5. Tip Rack for Clean Probes 96 Position

Section 1: Key Features and Specifications

The OMNI Prep 96 is a fully automated sample homogenizing workstation. The OMNI Prep 96 can homogenize up to four samples simultaneously, and can process up to 96 samples in a batch. The potential for cross-contamination of samples can be virtually eliminated by using disposable OMNI Tip™ Homogenizer probes.

The OMNI Prep 96 fully automates the time consuming manual homogenization of samples. Load the sample tubes into the sample rack, and the OMNI Prep 96 will quickly and efficiently homogenize the samples in accordance with the selected method.

Specifications

PC/ Remote Operation	Touchscreen tablet supplied with control software and graphical user interface. Connects to OMNI Prep 96 via USB, enabling use either within or outside of bio-safety cabinet or fume hood. Remote accessibility enabled through internal network or with air card. *Internet access required in lab for Remote Accessibility.
Uni-Directional Control Mode	In certain configurations, the OMNI Prep 96 can operate as a component in a larger system, transmitting status and receiving SiLA based commands using TCP/IP via an ethernet cable connected to the OMNI Prep 96 PLC controller. See Section 7 of this user manual for details.
Homogenizer	Control Head is supplied with 4 DC 100 watt brush less motors with programmable variable speeds from 500 rpm up to 28,000 rpm. Customizable settings for run time, probe depth, probe oscillation, dimensions and speeds.
Processing Range	Sample size varies from 250 µL to 40 mL per tube depending on tube size. Sample racks are designed to accommodate 5 mL, 14 mL, 15 mL, 30 mL, and 50 mL sample tubes.
Required Components	OMNI Tip™ Plastic (Hard or Soft) or Hybrid probes are required for homogenization.
Item Number	51-02A-1 (Standard Configuration)
Certification	TUV, NRTL, CE, UKCA, RCM, KCC, FCC Part 15 Approved
Warranty	1 year extended warranty/service agreements are available.
Site Requirements	The unit must be placed on a solid work surface. The work surface also requires a 15 amp circuit and only two units can be placed on this circuit at one time.
Weight and Dimensions	The work surface or bench must be able to support the weight of the system, i.e. 125 lbs. (57 kg). The dimensions of the system are as follows D: 25.5" (64.8 cm), W: 37.5" (95.2 cm), H: 28.7" (72.9 cm)
Operating Environment	4°C to 40°C / 39°F to 104°F, Humidity: 5% to 95% RH
Ambient Air	The system must be located in an area where the ambient air is clean. No emission of solid particles or smoke in the air by adjacent equipment is allowed. The level of dust should be comparable to that of normal laboratory spaces.
Electrical Supply	100-230 VAC, 50/60Hz 950 VA Connect only to a properly grounded outlet.
External Fire Protection	External fire protection should be installed according to local regulations for equipment operating unattended.
Input Voltage	100-230 VAC, 50/60 Hz 950 VA
Input Current	8 Amp Maximum
Power Connector	IEC 60320 C13
Circuit breaker	8 Amp
Fan	92 x 92 mm 24Vdc 220 mA – Two fans
Overvoltage Category	II
Pollution Degree	2
Altitude	Up to 2000 m
For Indoor Use Only	

Proper Equipment Operation

To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer to qualified service personnel if help is required.

Use this product only in the manner described in this manual. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

FCC

This device complies with part 15 of the FCC (United States Federal Communications Commission) Rules. Operation is subject to the following two conditions:




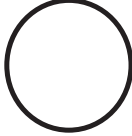












- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

CE/UKCA

This device complies with all CE and UKCA rules and requirements.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Table of Symbols

Symbol	Description	Symbol	Description
	Caution. Refer to the User documentation (ISO 7000-0434B)		On (power). (IEC 60417-5007)
	Hazardous voltage; risk of electric shock. (IEC 60417-6042)		Off (power). (IEC 60417-5008)
	Fuse. (IEC 60417-5016)		Consult Instructions for Use. (ISO 7000-1641)
	Alternating current. (IEC 60417-5032)		WEEE symbol (EN50419:2005)
	cTUVus Compliance Mark		CE Compliance Mark
	UKCA Compliance Mark		RCM Certification Mark
	Korean Certification Mark		China RoHS 2 Compliance Mark
	FCC Compliance		RoHS 2002/95/EC, 2011/65/EU, 2015/863 Compliant

Section 2: Rotor Stator Homogenizer Probes

The key component in the OMNI Prep 96 Homogenizer is the OMNI Tip™ Rotor Stator Homogenizer Probe. The rotor stator homogenizer probe spins a rotor cutting shaft at high speeds with a stationary housing to create a shearing force within the sample media. This shearing action effectively cuts, mixes, and homogenizes the sample.

The homogenizer probe consists of a rotating shaft with a cutting tip (Rotor) held within a stationary housing (Stator). The OMNI Prep 96 homogenizes a sample by inserting a specific probe into the specified sample tube and operating the probe at high rotational speeds to shear and mix the sample. The OMNI Prep 96 also oscillates the probe up-and-down and side-to-side to fully process the entire sample, simulating the motions used in manually operated homogenizers. The OMNI Prep 96 uses dedicated probes to process up to 4 samples simultaneously and up to 96 samples in a single batch. As dedicated individual probes are assigned to each sample tube, the potential for cross-contamination is minimized, and by using disposable probes, the potential for cross-contamination is virtually eliminated.

Probe Speeds

The homogenizer probes can be operated at speeds ranging from 500 to 28,000 rpm. Optimum speed is dependent on the type of sample being homogenized and the required consistency of the end product.

OMNI Tip™ Homogenizer Probes

OMNI Tip™ probes are disposable rotor stator homogenizer probes that are constructed of durable plastics (polycarbonate tube and ultem shaft). The probes are specifically designed to be discarded after use to prevent cross-contamination of samples. The clear stator tube allows you to view the interior of the probe to ensure that valuable sample material is not trapped or lost. The probes patented design eliminates the hassle of disassembly and maintenance required with traditional stainless steel homogenizer probes. OMNI Tip™ probes are available in both soft tissue (deaggregation) and hard tissue (frozen) versions.

OMNI Tip™ Specifications

Applications	- Soft Tissue OMNI Tip™: liquid/liquid or soft tissue processing - Hard Tissue OMNI Tip™: frozen or fibrous tissue processing
Processing Range	250 µL to 40 mL
Width	7 mm
Length	110 mm
Minimum Inner Diameter of Sample Tube	8 mm

OMNI Tip™ Hybrid Probes

OMNI Tip™ Hybrid Homogenizer Probes combine the convenience of disposable plastic probes with the durability of traditional stainless steel probes. Hybrid Homogenizer probes are made of a stainless steel outer stator tube with an inner ultem plastic rotor shaft. The plastic shafts can be disposed after each use or they may be cleaned and re-used multiple times. The simple two-piece design makes these probes much easier to clean than traditional stainless steel probes. OMNI Tip™ Hybrid probes are ideal for applications where chemical compatibility issues are a factor. OMNI's Hybrid Probes are compatible with most chemical compounds, including trizol, chloroform, and phenol.

Section 3: Preparing the OMNI Prep 96 for Use

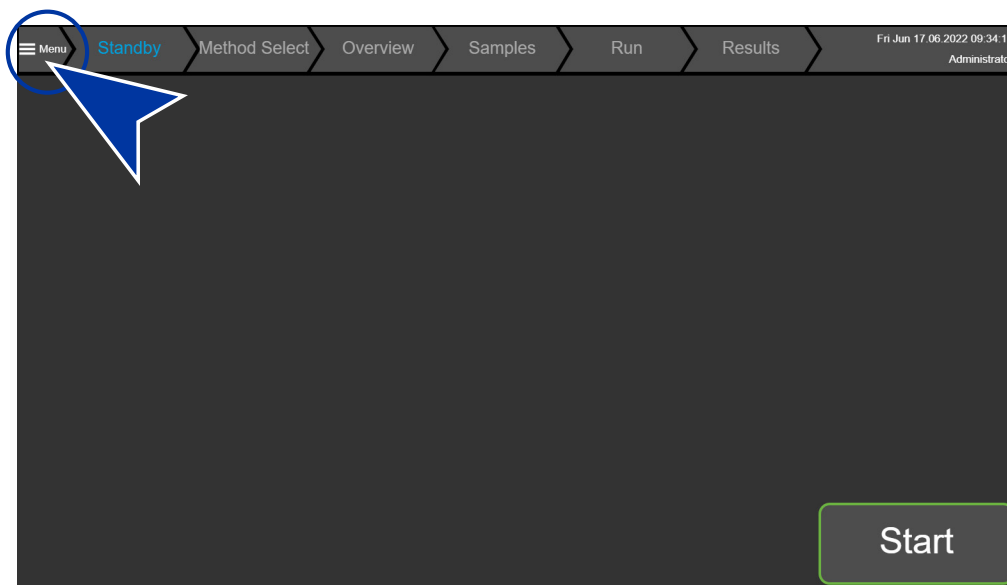
Calibration

The Prep 96 requires calibration during initial setup or when the unit is moved to a new location. Calibrating the unit is important to ensure the machine operates properly.

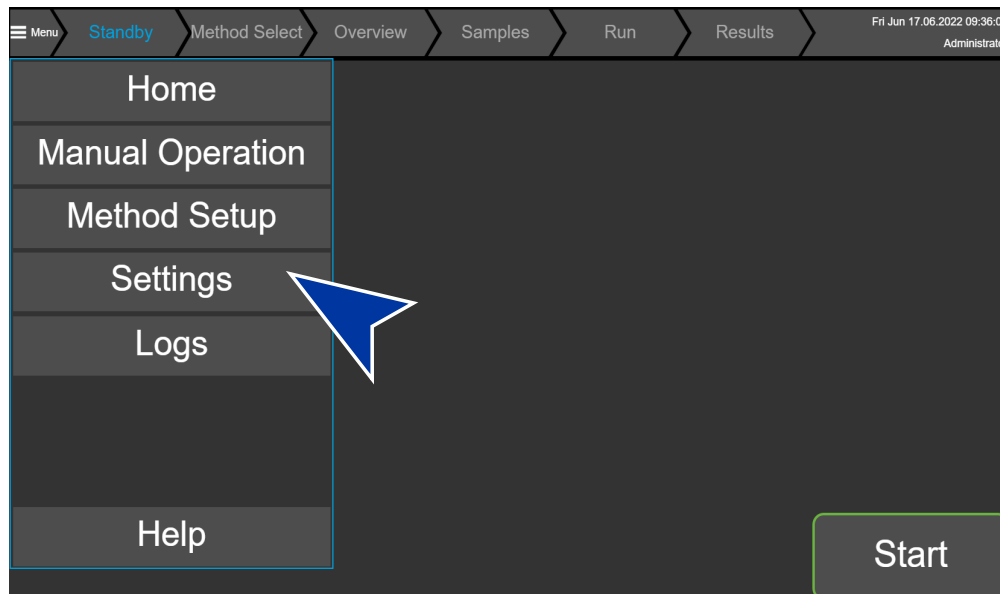
1. Turn on the OMNI Prep 96 by pressing the On-Off switch to the ON (1) position. The On-Off switch is located on the left side of the OMNI Prep 96 toward the rear. There is an additional circular switch on the front left hand side of the unit, ensure this is also pressed.

Ensure that the tablet is on and OMNI Prep 96 application is running.

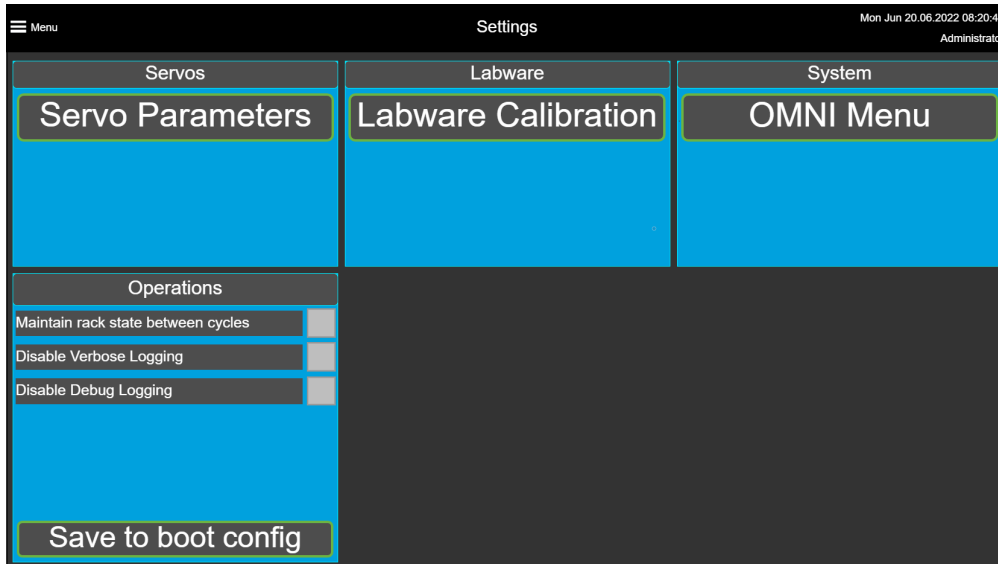
2. Select Menu at the top of the screen.



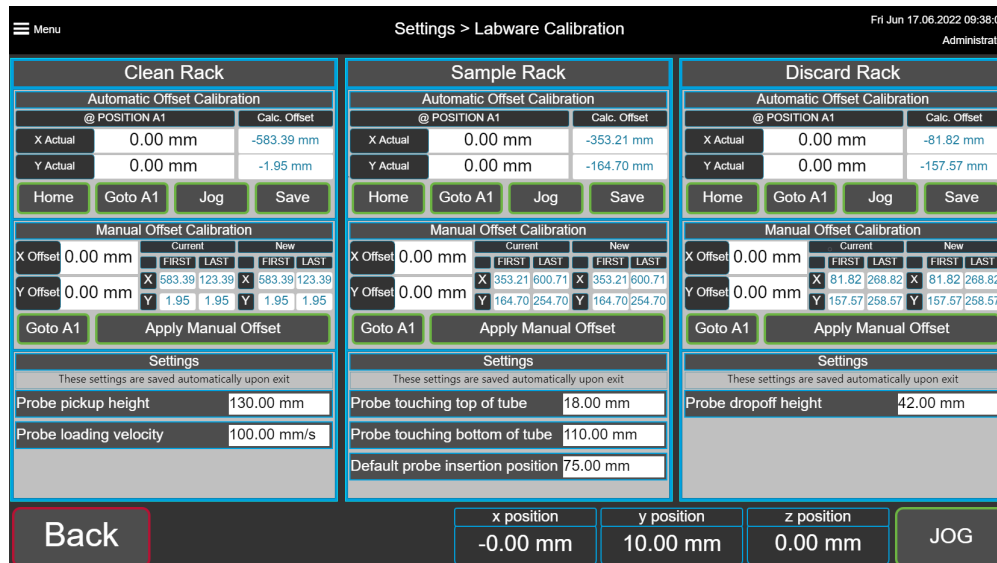
3. Select "Settings" from the Menu.



4. In the System - OMNI Menu, ensure the Labware selected matches the installed accessories. If necessary change the selected Labware. Then press Initialize and Load Labware.



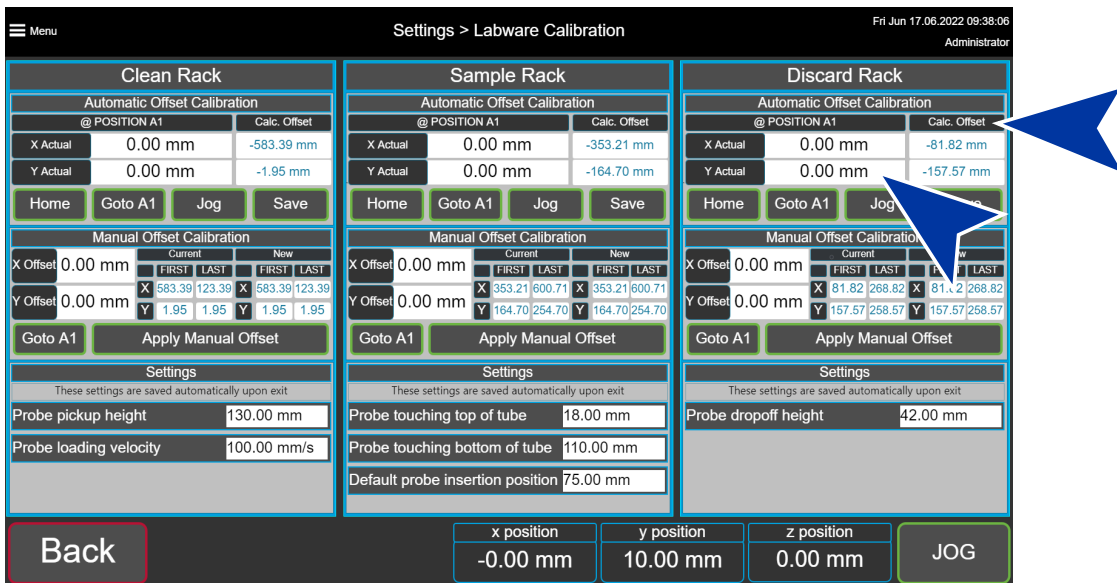
Press BACK and then press Labware Calibration.



5. You can choose to input an offset, or the actual value. Select which value you'd like to edit by clicking the appropriate value in the white box. Note that the three tables correspond to the three different accessories installed on this system.



6. When the values have been entered, click 'Calibrate' and check that the calculated values in the far-right column have updated.

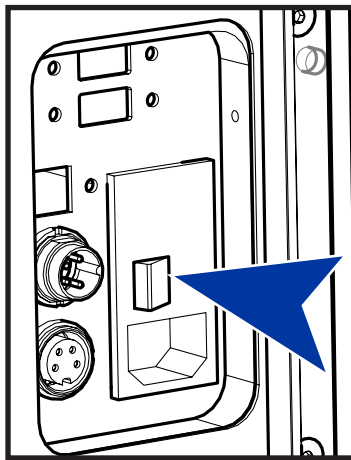


7. Wait for approximately 10 seconds before navigating away from the calibration page to ensure that the changes have been saved.

Prepare and turn on the system

1. Check the OMNI Prep 96 unit to verify that there are no used probes or sample tubes left in the racks. Verify that the unit is clean and that no contaminants remain from previous runs.

2. Turn on the OMNI Prep 96 by pressing the On-Off switch to the ON (1) position. The On-Off switch is located on the left side of the OMNI Prep 96 toward the rear. There is an additional circular switch on the front left hand side of the unit, ensure this is also pressed.



3. Ensure that the tablet is on and OMNI Prep 96 application is running.

4. Place uncapped sample tubes into the OMNI Prep 96 sample rack.

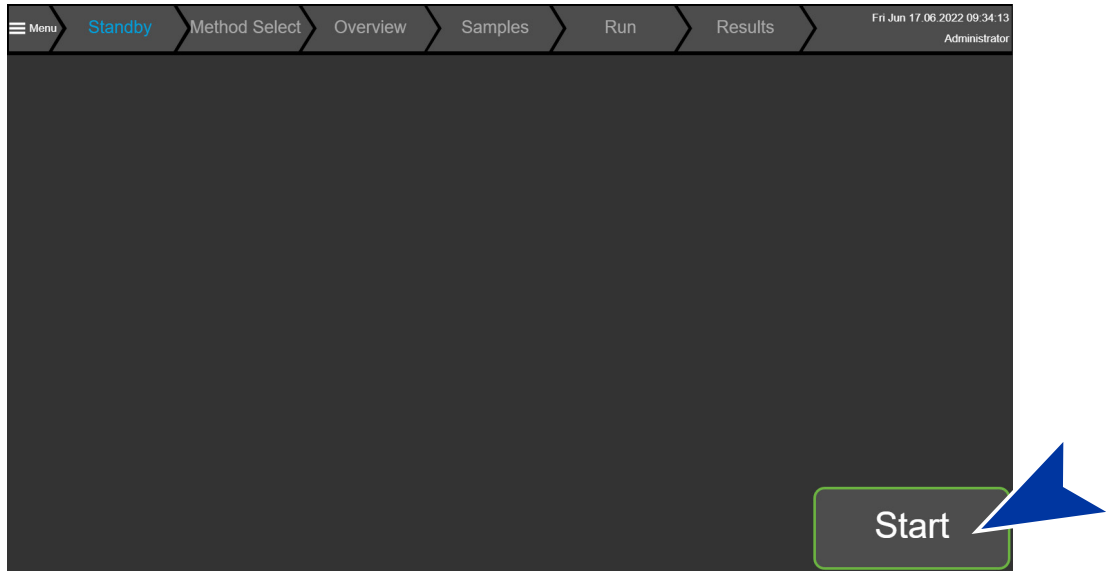
5. Load the sample rack into the OMNI Prep 96 Workstation.

6. Ensure the appropriate number of fresh OMNI probes are loaded into the system.

7. Samples are ready for processing.

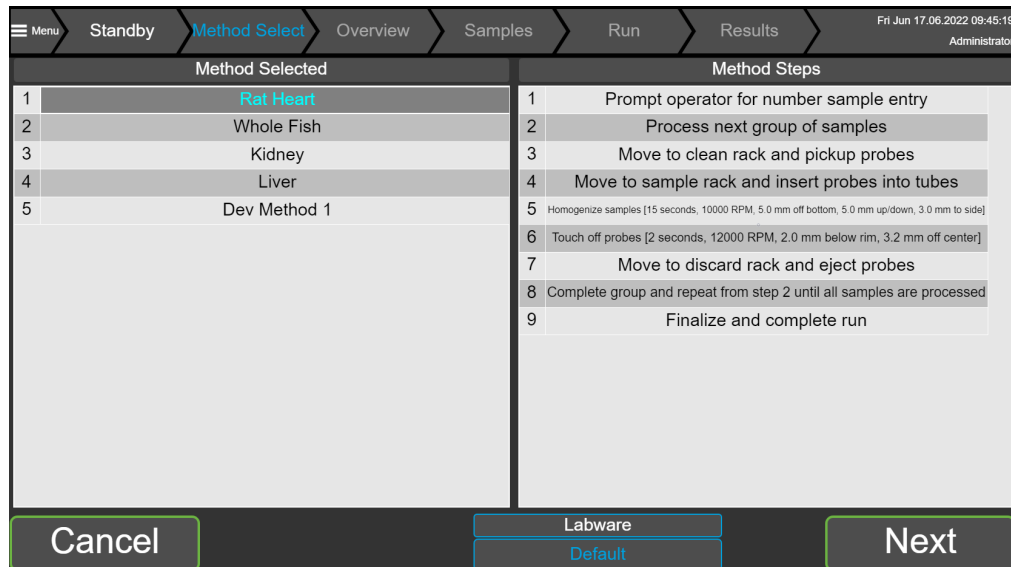
Section 4: Operation

1. Select 'New Cycle' to proceed to Method Select

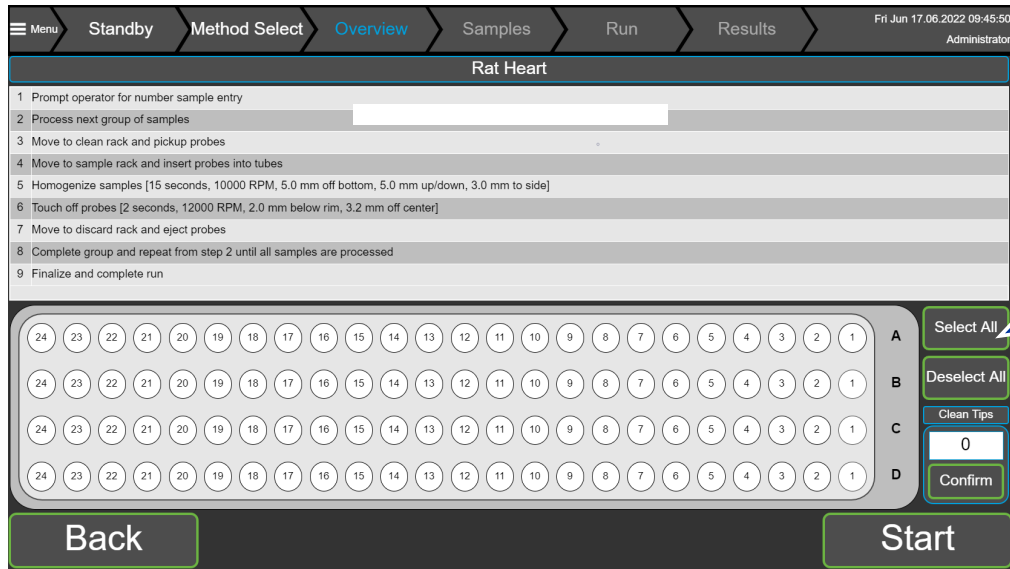


2. Methods are software programs that control the OMNI Prep 96 operations and set the parameters (tube size, probe size, probe speed, etc.) used during sample processing. Default methods may have been created during the equipment installation to meet your specific needs. You can also change or create new methods to match new sample requirements.

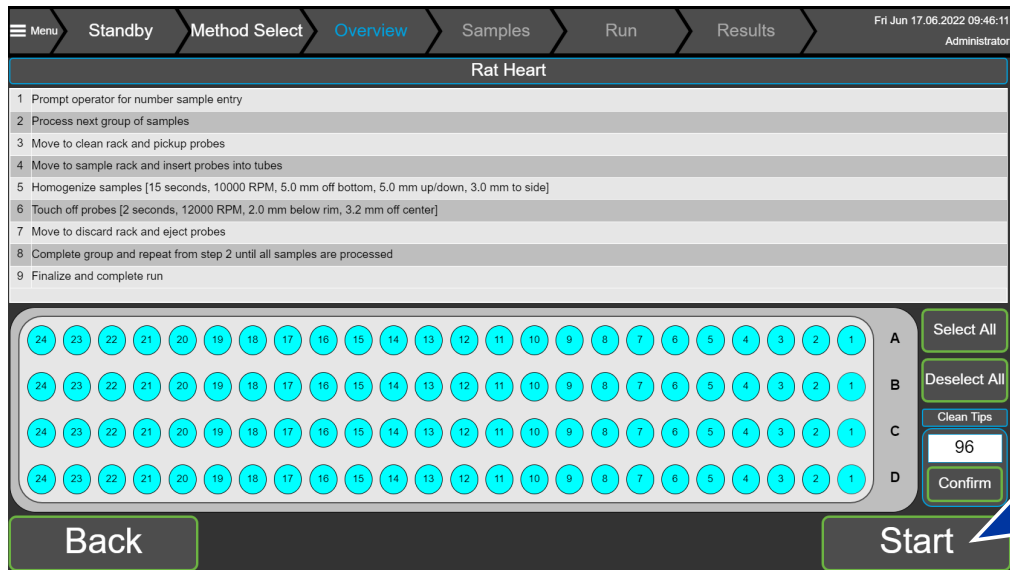
3. Select a method from the left side; and ensure that the method steps listed on the right are consistent with the expected workflow.



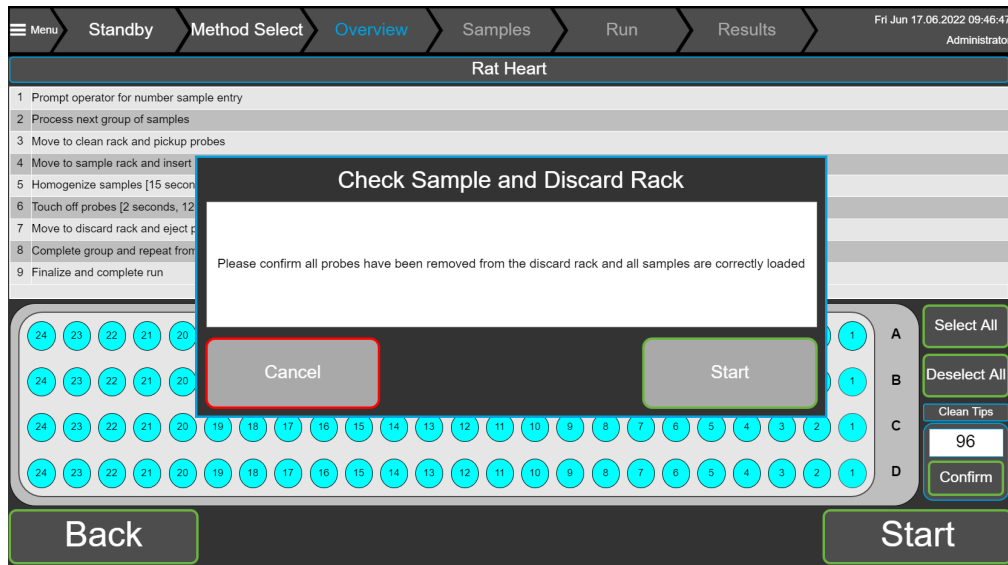
4. On the 'Overview Screen the Clean Tip rack is displayed. Tips can be selected individually. It is typically easiest to use the 'Select All' function. This will tell the system that the clean tip rack is full.



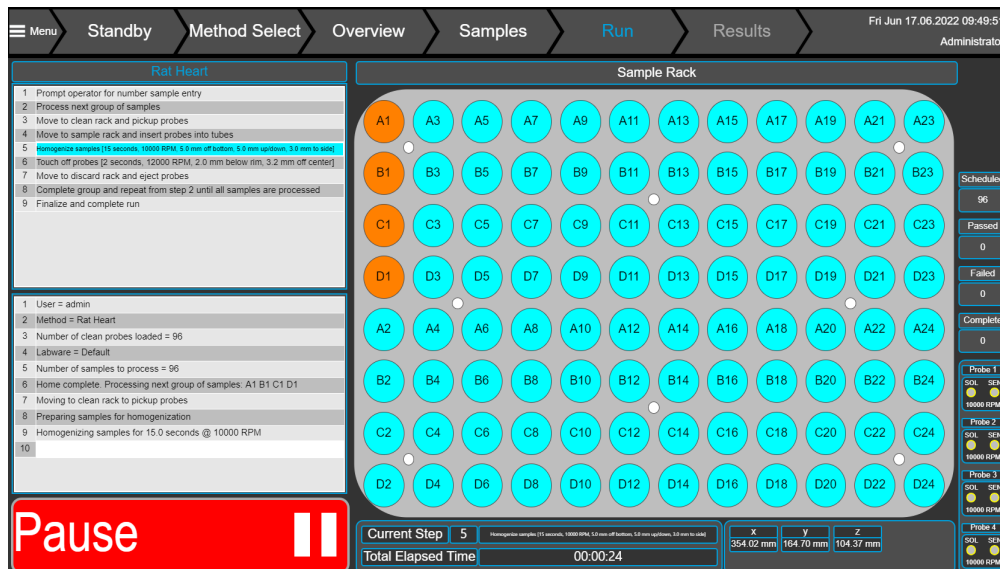
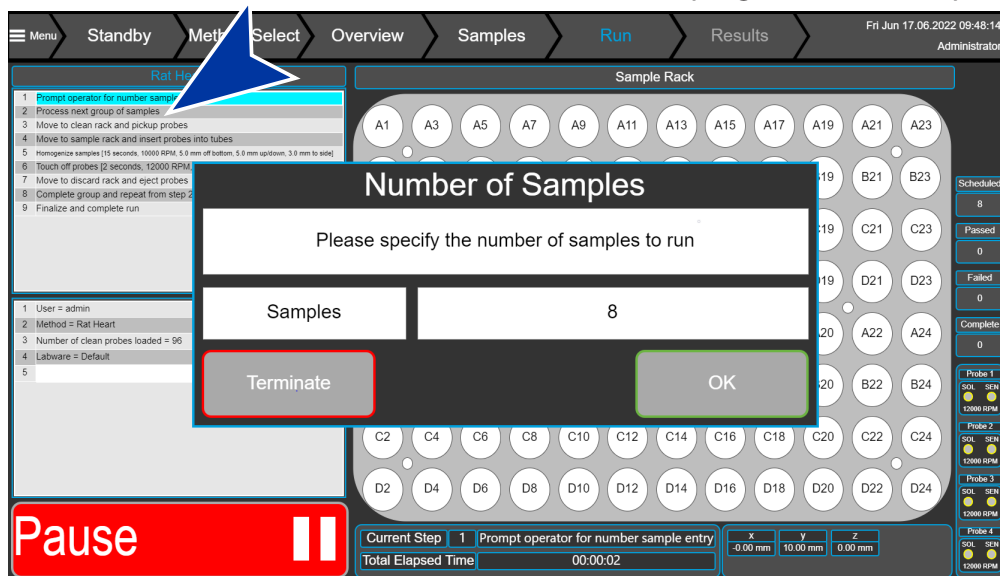
5. Loaded tips are indicated as light blue circles. Select 'Start' when you are ready to proceed.



6. Ensure the installed rack and tips match the software. Also ensure the drawer is fastened securely and the door is shut.



7. The current step of the method when in operation will be highlighted in blue on the Step Menu which is located on the left side of the screen. Use this indicator to follow the progress of the sample processing.

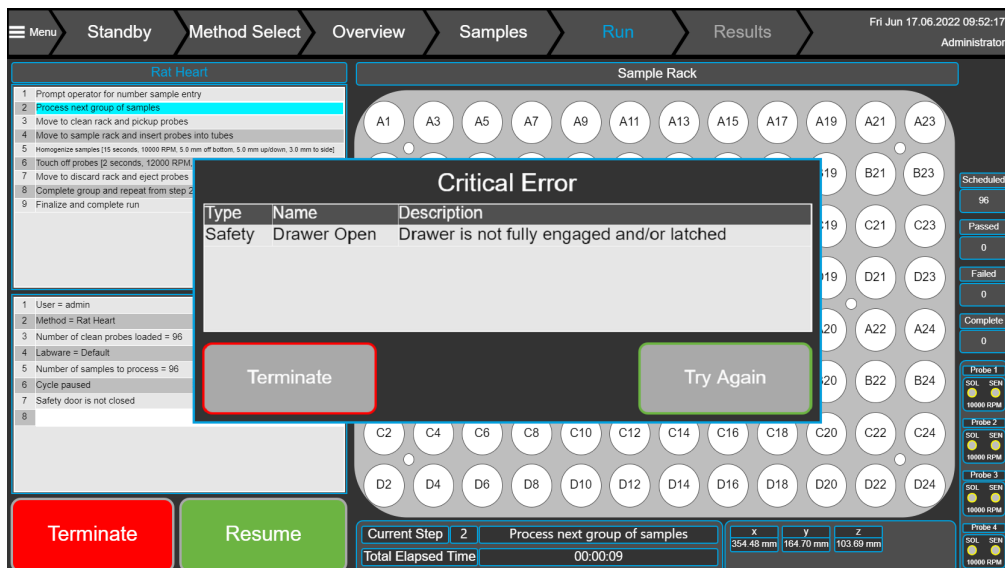
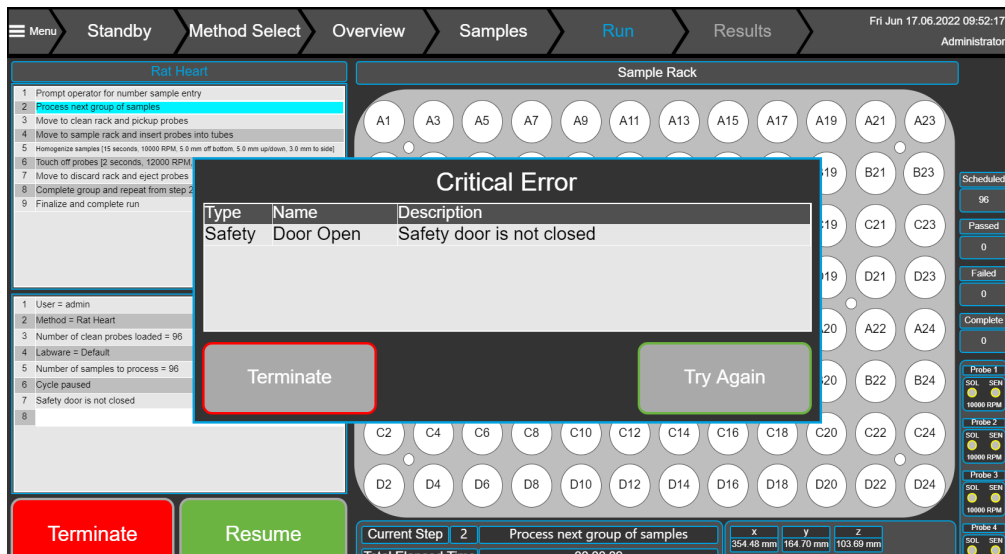


Pausing and Stopping the OMNI Prep 96

8. When the 'Pause Button' is pressed, you will have the option to terminate the run, or continue.



9. There are several sensors on the system. If the door or drawer is ajar during the run, you will see the following screens. Please close the door/drawer and the run can be continued.



10. At the end of the run, you will be presented with a results screen. This has useful information including number of samples run, total time elapsed, and the method steps.

Menu Standby Method Select Overview Samples Run **Results** Fri Jun 17.06.2022 10:56:44 Administrator

Summary

Method: Rat Heart
 Total Elapsed Time: 00:13:21

Samples

- Scheduled: 96
- Passed: 96
- Failed: 0
- Complete: 96

Cycle Log

- 10:03:47 INFO User = admin
- 10:03:47 INFO Method = Rat Heart
- 10:03:47 INFO Number of clean probes loaded = 96
- 10:03:47 INFO Labware = Default
- 10:04:13 STEP Number of samples to process = 96
- 10:04:20 STEP Home complete. Processing next group of samples: A1 B1 C1 D1
- 10:04:20 STEP Moving to clean rack to pickup probes
- 10:04:25 STEP Preparing samples for homogenization
- 10:04:28 STEP Homogenizing samples for 15.0 seconds @ 10000 RPM
- 10:04:46 STEP Performing probe touchoff for 2.0 seconds @ 12000 RPM
- 10:04:50 INFO Touchoff complete
- 10:04:50 STEP Moving to discard rack to eject probes
- 10:04:52 STEP Processing next group of samples: A2 B2 C2 D2
- 10:04:52 STEP Moving to clean rack to pickup probes
- 10:04:58 STEP Preparing samples for homogenization
- 10:05:01 STEP Homogenizing samples for 15.0 seconds @ 10000 RPM
- 10:05:19 STEP Performing probe touchoff for 2.0 seconds @ 12000 RPM
- 10:05:22 INFO Touchoff complete
- 10:05:22 STEP Moving to discard rack to eject probes
- 10:05:25 STEP Processing next group of samples: A3 B3 C3 D3
- 10:05:25 STEP Moving to clean rack to pickup probes
- 10:05:30 STEP Preparing samples for homogenization
- 10:05:33 STEP Homogenizing samples for 15.0 seconds @ 10000 RPM
- 10:05:51 STEP Performing probe touchoff for 2.0 seconds @ 12000 RPM
- 10:05:54 INFO Touchoff complete
- 10:05:54 STEP Moving to discard rack to eject probes
- 10:05:57 STEP Processing next group of samples: A4 B4 C4 D4
- 10:05:57 STEP Moving to clean rack to pickup probes
- 10:06:02 STEP Preparing samples for homogenization
- 10:06:05 STEP Homogenizing samples for 15.0 seconds @ 10000 RPM
- 10:06:23 STEP Performing probe touchoff for 2.0 seconds @ 12000 RPM
- 10:06:26 INFO Touchoff complete
- 10:06:26 STEP Moving to discard rack to eject probes
- 10:06:29 STEP Processing next group of samples: A5 B5 C5 D5
- 10:06:29 STEP Moving to clean rack to pickup probes
- 10:06:34 STEP Preparing samples for homogenization

Clean Rack

Discard Rack

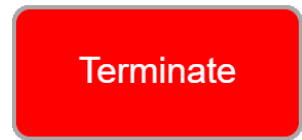
Sample Rack

Home

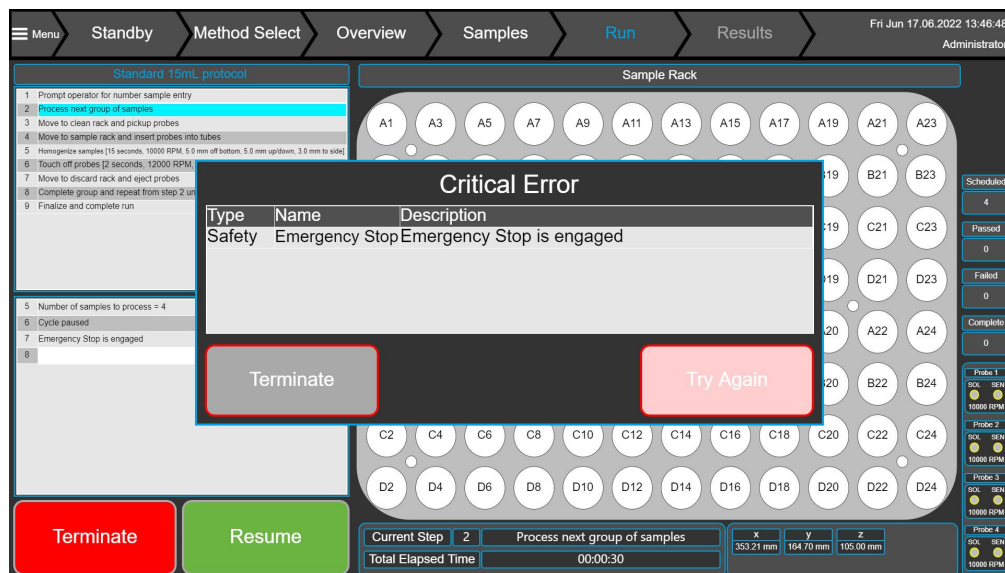
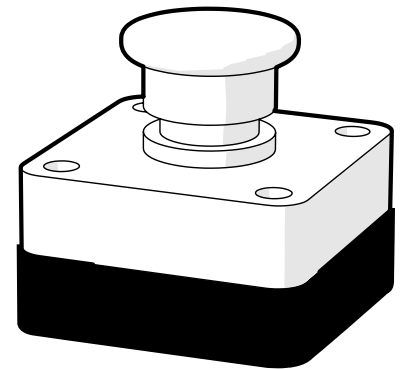
Click the PAUSE button to pause the current operation. The OMNI Prep 96 unit will finish its current movement prior to pausing. Pausing allows you to stop the processing operation temporarily and then resume at the next operation step. Click on this button to terminate the program or click resume button to resume the program.



Clicking the terminate button will present a prompt - From this prompt you can choose to resume the run, or stop processing. If you terminate and processing is stopped, the system will proceed to the results page and a new run can be started.



In the event of an emergency press the red Emergency Stop button, attached to the base of the OMNI Prep 96 unit, to immediately shut down the entire operation. Power will not be restored to the OMNI Prep 96 unit until the Emergency Stop button is rotated and pulled back out into the operational position.



Section 5: Cleaning and Maintenance

Turn the power off to the OMNI Prep 96 unit prior to cleaning. This minimizes the potential for electrical shock and prevents damage to sensitive components on the OMNI Prep 96 unit.

Recommended: After each use and at the end of the work day (after all processing is complete), remove all racks (sample, new probe, used probe) from the OMNI Prep 96 unit, and clean separately with a mild detergent.

Wipe the interior of the unit with a moist cloth to clean any spills. You may also use a mild detergent if necessary; however, be careful not to spill water on any sensitive electronics or electrical connections. Wipe surfaces dry prior to replacing racks. Sterilize OMNI Prep 96 using mild bleach solution (i.e. Bleach-Rite®), followed by an immediate isopropyl alcohol wipe down to prevent metal corrosion.

***For Stainless and metal components only. Use soap and water to clean plastics**

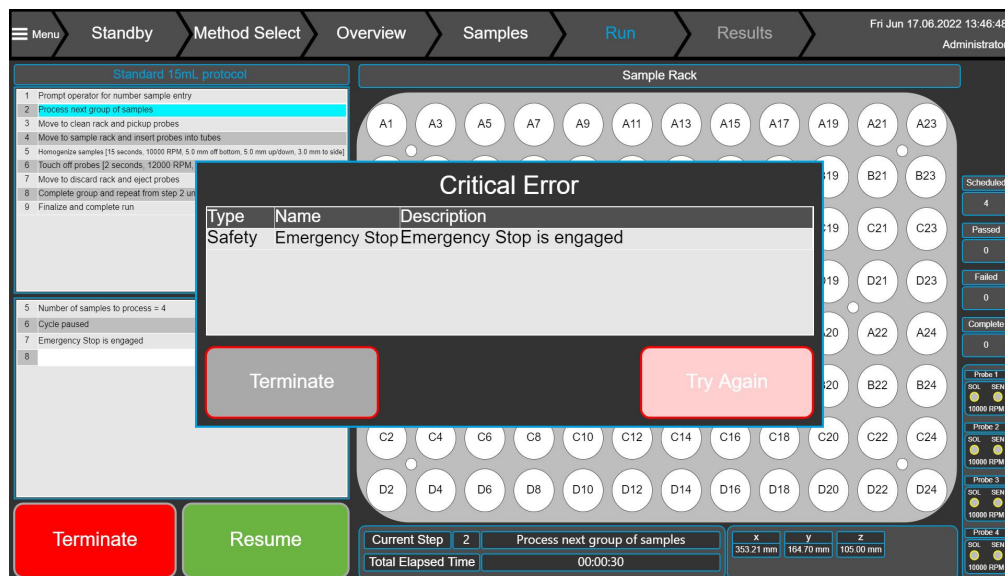
***Extended bleach exposure on metal parts may cause pitting and/or corrosion.**

The robotic arm must not be moved manually while the power is on. If necessary, you may manually move the robot arm to access covered areas. Move the robotic arm slowly. Fast movements may induce stray currents in the stepper motor that can damage the stepper motor or other sensitive electrical components. Manually moving the control arm with the power on may result in damage to the stepper motors.

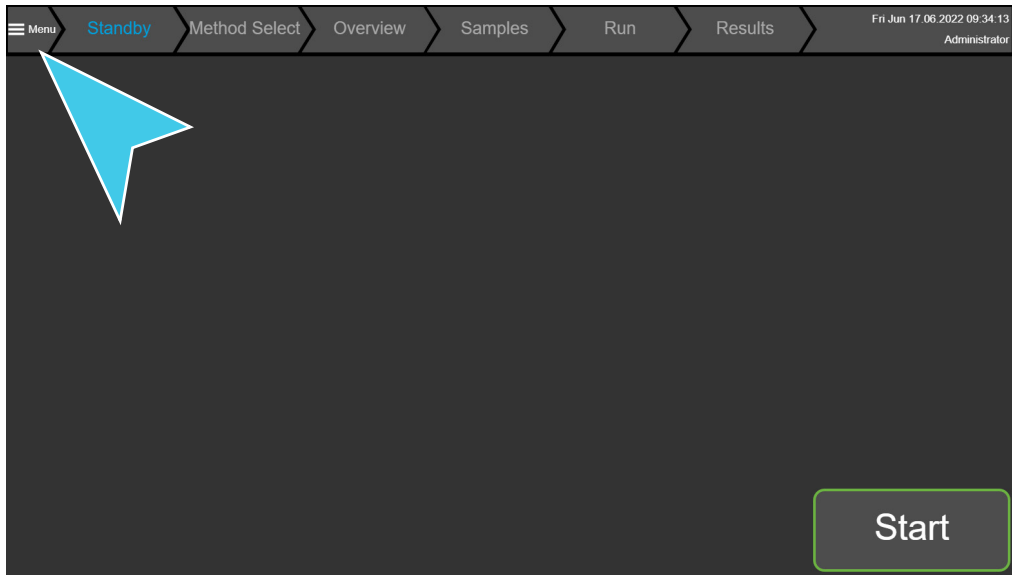
Clearing Jams

Minor problems such as a jammed probe may be resolved as follows:

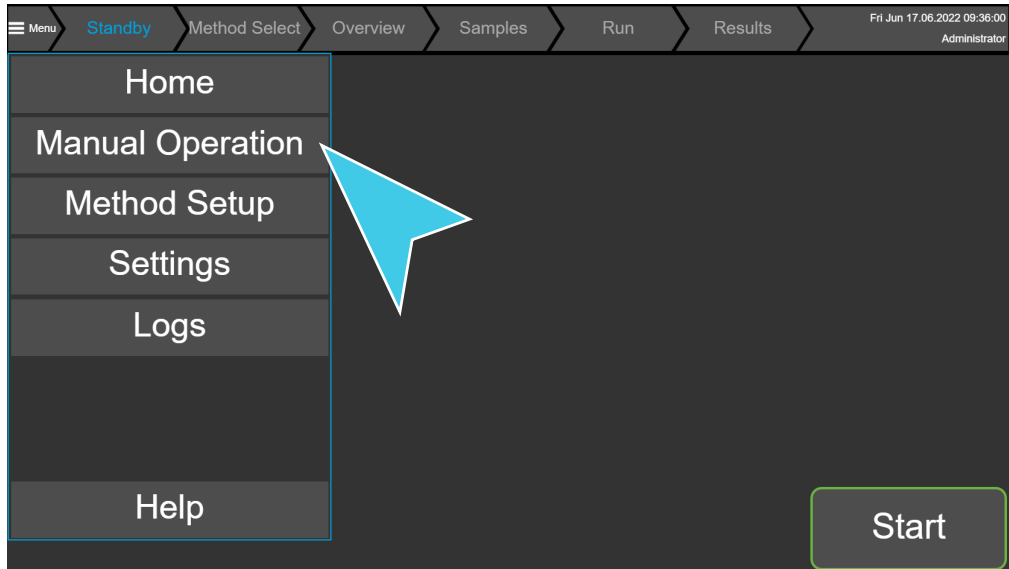
1. Power the system off and on - Clear E-Stop if pressed.



2. Select the Menu.

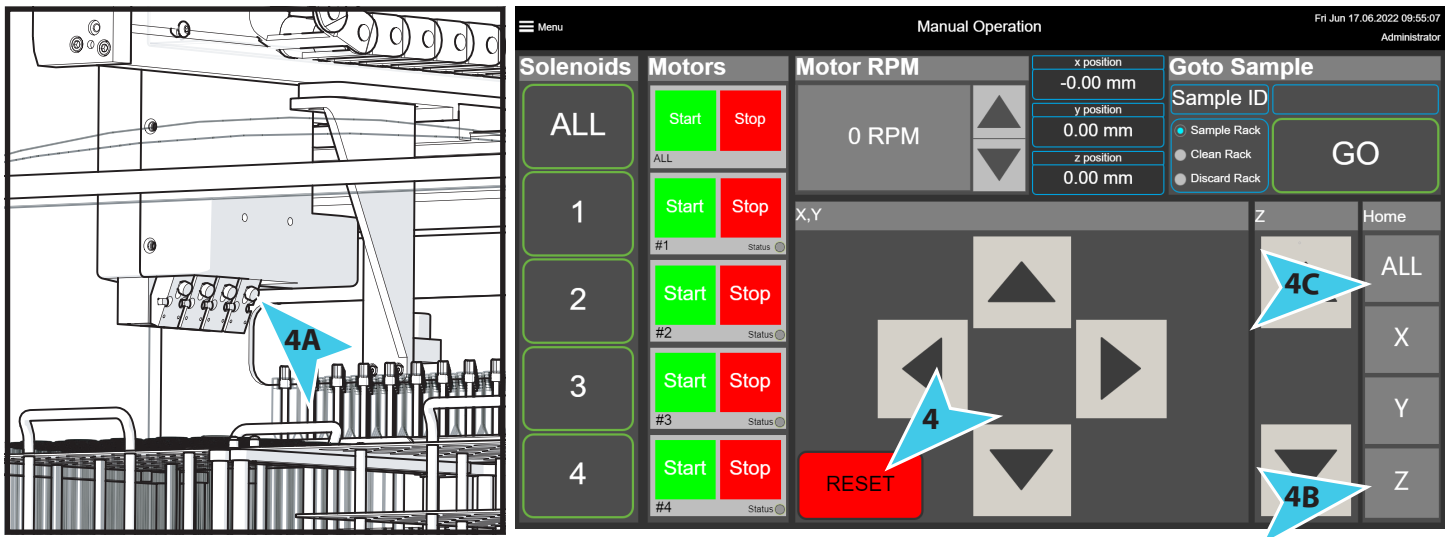


3. Select "Manual Operation"



4. Press "Reset"

- A. If there are still probes in the end effector, remove the probes by pressing up on the latches.
- B. Once the end effector is clear, press "Homing, Z AXIS"
- C. Press "Homing, ALL"



You may also clear jams manually if the software is not operating by doing the following:

1. Turn off power to the OMNI Prep 96 unit.
2. Slowly and gently slide robotic arm laterally away from the jam.
3. Clear the jam and remove any obstructions.
4. Move robotic arm out of the jam and to the home position.

NOTE: The Z axis is a braked motor and cannot be manually moved

Section 6: Creating and Editing Methods

Default Methods

The OMNI Prep 96 is delivered and installed with a set of methods based upon your laboratory's specific needs. As your needs change, we can work with your laboratory to set up and modify these methods to accommodate your processing needs.

The methods are software programs which set the parameters and control the operations in the homogenizing process. Initializing the system, setting the sample tube sizes, setting the probe size and type, setting probe speeds, and homogenizing times are all examples of the parameters controlled by the method.

Section 7: Troubleshooting

Error/ Operator Codes

Window Code	Title/ Description	Details/ Resolution
0001	VERIFY_RUN_TERMINATION	Confirm a requested termination of the current run. If user selects to terminate, all sample processing stops and cannot be restarted without initiating an entire new run. If user selects not to terminate, control will be returned to the previous window.
0002	MOTION_ERROR_TERMINATION	Window appears if one of the motor's motion was interrupted or if a motor is knocked out of position
0003	?? Axis Motor had motion error. Code = ??	Reports the motor that had a motion error.
0004	SELECT_A_SAMPLE_TO_TERMINATE	Window appears if user presses the terminate sample button on the main screen while system is paused. Provides options for terminating samples
0005	The sample number entered is not an active or valid sample.	Alerts user to invalid selection in sample termination window (E200)
0006	VERIFY_SAMPLE_TERMINATION	C single sample. Only the selected sample will terminate. If termination is confirmed, all subsequent processing steps will not be performed on the sample. NOTE: that once sample is terminated, it cannot be restarted.
0007	Profile Setup Error	Alert for person that is programming a profile that the selected graphic is not correct or the maximum specified number of samples in the rack is not correct.
0008	Run Setup Window	Appears at the beginning of a run to allow user input of number of samples. Also provides options for changing certain run parameters.
0009	First Sample to run needs to be equal to or less than Last Sample to run.	Warning appears if user inputs an inappropriate starting sample for a run.
0010	Last Sample to run needs to be equal to or less than ?? for the rack selected	Warning appears if the user inputs an inappropriate final sample, for example, if the user selects to run 55 samples in a 24 position rack. The ?? value is usually 24, 48, or 96 depending on the sample rack.
0011	VERIFY_PROPER_LOADING_FOR_RUNNING_OMNI_TIPS	Appears when running OMNI Tips™ to allow user to confirm proper loading of tips before run starts.

0012	There should not be any OMNI Tips™ in Probe Holders on Robot Arm. However, probe(s) is (are) detected in position(s): ??	Displays if OMNI Tip™s are improperly loaded in Probe Holders at the start of the run.
0013	VERIFY_PROPER_LOADING_FOR_RUNNING_FIXED_PROBES_AND_CLEANING_TANKS	Appears when running fixed homogenization probes (i.e., Stainless Steel or Hybrid Probes) to allow user to confirm proper loading.
0014	Probes should be loaded in any probe holder position where there is a ...	Appears if system detects an improper loading of fixed homogenization probes.
0015	Cannot run Sample Rack that has a wide spacing with fixed probes in probe holder positions 2, 4, 6, and 8.	Appears if probes are in positions 2, 4, 6, or 8 when running 24 position rack.
0016	CHANGE_STEP_PARAMETERS	Appears if user selects to change step parameters while starting a run.
0017	Run complete	Appears after a run is finished.
0018	Run complete. "\n" However, samples in the following rack positions had processor errors	Appears if run completes with specific samples having errors or warnings. The error or warning will highlight in the screen graphics and appear in the sample data file.
0019	Homing sequence has been terminated. Need to clear all obstructions and then restart.	Appears if system detects a motor error while homing system at the start of a profile. Since proper homing is critical, the startup sequence must be restarted if this error occurs.

Homogenizer Error Code Windows

Window Code	Title / Description	Details/ Resolution
0020	Cannot cycle to more than 50 mm from bottom of tube. The processing parameters need to be changed. This run will be terminated.	Appears if the person who programmed the profile specifies a cycle height of more than 50 mm. A cycle height of over 50 mm is greater than the allowed travel distance of the homogenizer probe axis.
0021	Edit Homogenizing parameters for Step No. ??	Appears if user selects to override the default profile parameters for homogenizing.
0022	DID_NOT_FULLY_LOAD_OMNI_TIPS	Appears if the system was not able to properly load the four OMNI Tips™. Follow the on-screen prompts that instruct the operator on how to recover and proceed.

0023	RIFY_OMNI_TIP_PROPERLY_LOADED_AFTER_MISLOAD	Appears after an OMNI Tip™ loading error window. It allows the user to confirm system has properly loaded probes before proceeding.
0024	IMPROPER_PROBE_LOADING	The system has sensors that detect the position in which homogenizer probes are loaded. Appears If there are probes in locations that should be empty or there are empty positions that should have a probe. After the user takes action to correct the problem, this window reappears until the loading is correct.
0025	SENSOR_DETECTED_STUCK_PROBE	Appears if the system sensors detect a probe is stuck in the holder after it should have been ejected. The user is prompted to make sure all probes are fully ejected.
0026	DETECTED_STUCK_PROBE_DURING_MOVE	The system makes a slow move after ejecting homogenizer probes. If this move is obstructed, a probe may not have been fully ejected. The user is prompted to make sure all probes are fully ejected.

Section 8: Frequently Asked Questions

- How do I turn on my OMNI Prep 96?

The OMNI Prep 96 must be connected to a power supply via an appropriate power cable. Additionally, the control tablet must be connected via USB-C. To turn on the OMNI Prep 96, switch the power on. The OMNI Prep 96 status lights will indicate the system has power. Once the system is powered up, use the control tablet to launch the OMNI Prep 96 software.

- How do I select a Method in the OMNI Prep 96 Software?

Methods can be selected from the OMNI Prep 96 software's start window. All methods are listed in the method selection table during the appropriate workflow step.

- How do I initiate a sample run on the OMNI Prep 96?

A sample run can be initiated by clicking the START button after selecting the desired method.

- On the sample and probe racks, which location is the sample #1 location?

On the sample rack the #1 location is the top left corner (see image on page 12). For the clean probe rack the #1 location is the top right corner (see image on page 11).

- What is the touch off step for?

The touch off step is designed to spin debris caught in the probe out of the probe and back into the tube.

- How does the OMNI Prep 96 know it has picked up the probes it needs to process?

The OMNI Prep 96 is equipped with sensors to detect if probes have been successfully picked up.

- How do I terminate a sample run?

Press the pause button on the OMNI Prep 96. The system will pause and ask the user to either resume or terminate. If terminate is selected, the user will be prompted again. If yes is selected on this occasion the system will terminate all processes. Sample processing will have to be resumed from the beginning.

- What is the Emergency Stop button for?

The Emergency Stop button or "E-Stop" button is used to immediately stop the OMNI Prep 96 system from running. Ideally, the "E-Stop" is only used if the system becomes hazardous to the user or other individuals.

- How can I move the axis of the system without running a program?

To move an axis, open the menu on the OMNI Prep 96 start window. Once the menu is open, select "Select Manual Controls" from here the robot can be 'jogged' in any direction.

NOTE: Always home Z-Axis first, when cleaning jams.

NOTE: The system under manual control has the ability to crash into racks or other system structures. Use caution when manually moving the system. To extract, support the probe and lift the probe latch pin on the motor module probe coupling. The probe should fall free from the coupling.

- What if I need to change methods?

The OMNI Prep 96 system utilizes methods to control the sequence of steps to be executed during sample preparation. These methods are tested and optimized to work with specific tissues. From time to time, users needs change and additional methods may be required. In the event of this need, OMNI International is happy to edit or create methods as required. New methods can be generated quickly and enabled on the system remotely pending the system is connected to the Internet.



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