RAL Autoclave Usage Instruction Guide

1. Standard Autoclave Operation

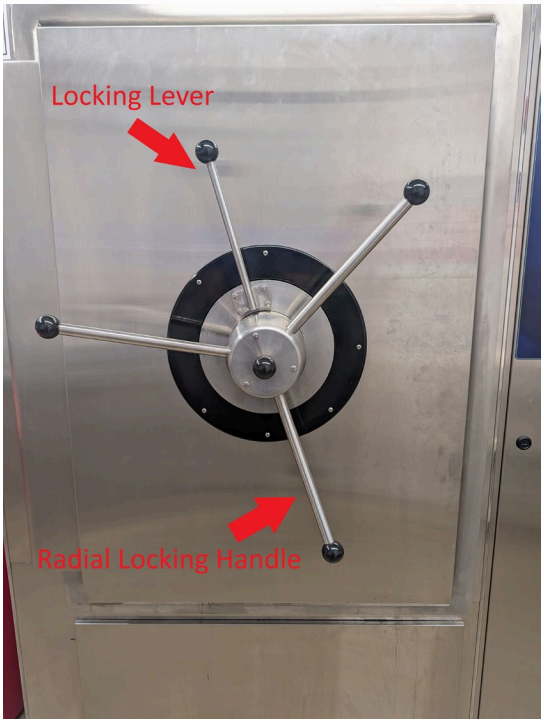
Step 1: Load Materials

Load the materials to be sterilized into the autoclave. Ensure that all trays and containers used to hold materials are rated for autoclave use.

Step 2: Close and Secure the Door

1. Close the autoclave door and move the locking lever to the right to lock it.
2. Turn the radial locking handle clockwise (to the right) until it is snug and the door is sealed.

CAUTION: <u>DO NOT OVERTIGHTEN</u> the radial locking handle. Excessive force can damage the locking rod and could result in your faculty advisor paying for damages. Repairs can be costly.



Step 3: Select Your Username

1. Press the **"Username"** field to display the list of available users.
2. Select the button corresponding to your username.
3. If your username is not visible, press the arrow button in the lower-right corner of the selection window to scroll through additional users.

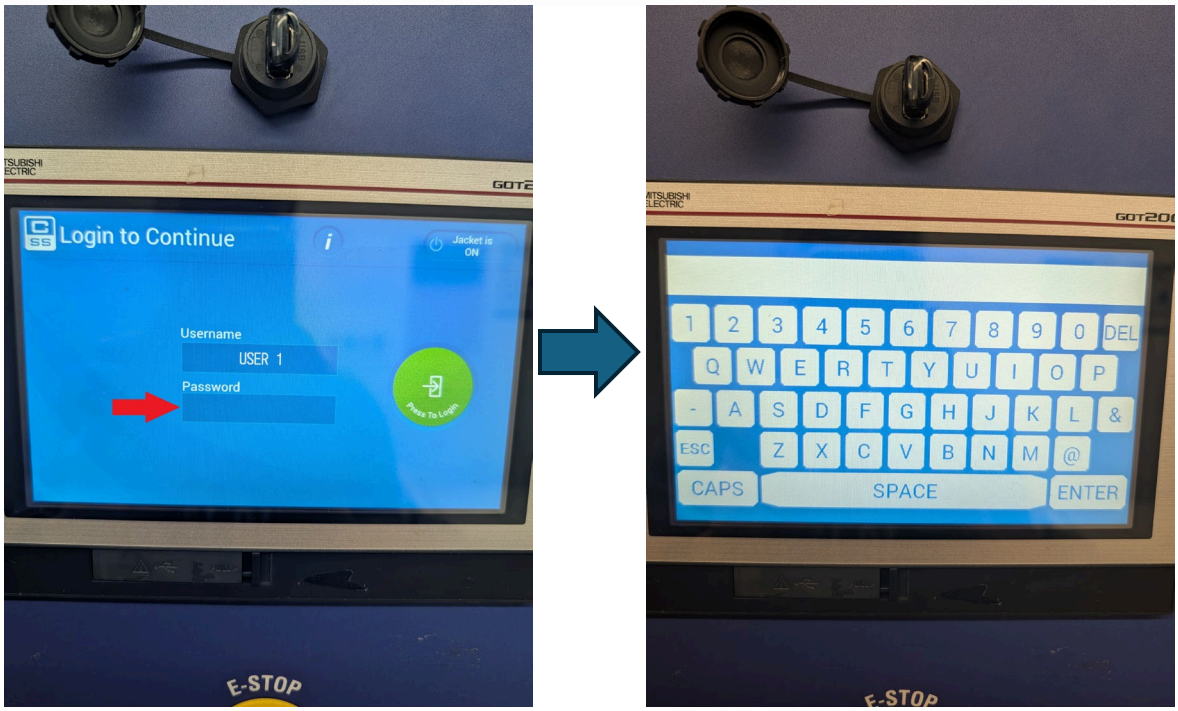
Example: Select "User 1" when following the example shown in the accompanying images.



Step 4: Enter Your Password

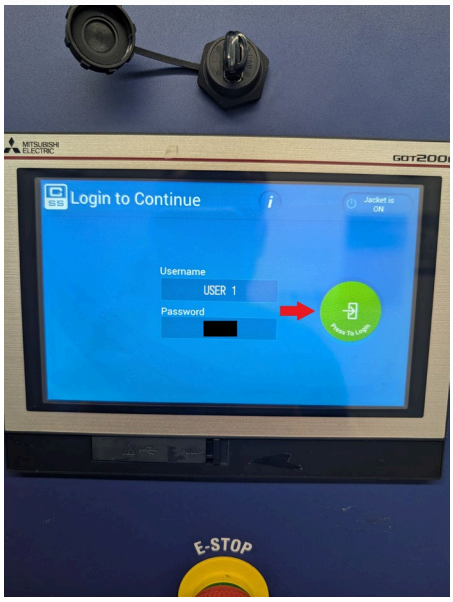
1. Press the **"Password"** field to display the on-screen keyboard.
2. Enter your password and press **"Enter."**

Note: The touchscreen may be less responsive than expected. Enter your password slowly to ensure that each character registers correctly.



Step 5: Log In

Press the **"Press to Login"** button to access the autoclave's operating interface.

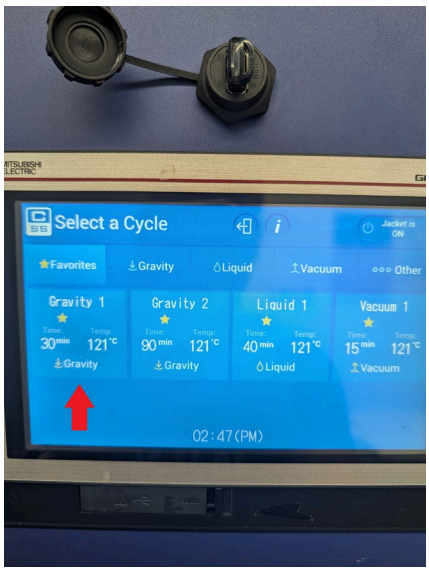


Step 6: Select the Appropriate Cycle

1. Review the available autoclave cycles. The **"Favorites"** tab is displayed by default.
2. To view additional cycle options, select one of the tabs at the top of the screen: **Gravity, Liquid, Vacuum,** or **Other**.
3. Select the cycle appropriate for the materials being processed and the required sterilization parameters.

Example: To run a 30-minute gravity cycle, select "Gravity 1."

Important: Before starting the cycle, verify that the selected cycle's specifications meet the requirements for your materials and intended application.



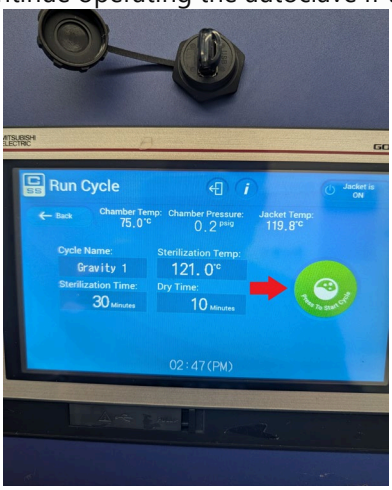
Step 7: Start the Cycle

1. Verify that the autoclave door is properly sealed and that the selected cycle is correct.
2. Press the **"Press to Start Cycle"** button.
3. Monitor the autoclave for signs of abnormal operation.

WARNING: If hot air or steam escapes from around the door:

- If the leak is minor and the door handle turns normally, you may carefully turn the radial locking handle clockwise to tighten the seal.
- If the leak continues, or if excessive force is required to turn the handle, abort the cycle and restart the procedure.
- If the problem persists, do not continue using the autoclave. Contact SCS Facilities for assistance.

Do not attempt to force the door handle or continue operating the autoclave if the door cannot be sealed properly.

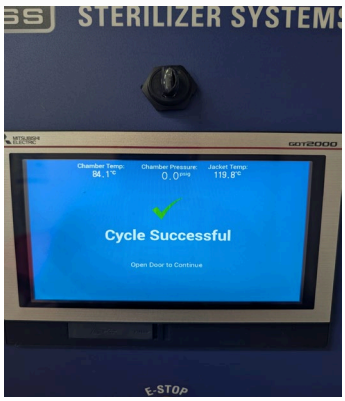


Step 8: Confirm Cycle Completion and Open the Door

WARNING: DO NOT attempt to unseal or unlock the autoclave door until the appropriate completion message is displayed.

1. Wait until the screen displays **"Cycle Successful."**
2. Turn the radial locking handle counterclockwise (to the left) until it stops to release the door seal.
3. Move the locking lever to the left to unlock the door.
4. Stand on the hinge side of the door and open it carefully to allow any remaining steam to escape before removing your materials

CAUTION: DO NOT apply excessive force when unsealing the door. Doing so may damage the locking rod. If more force is required to unseal the door than was needed to seal it, stop and contact SCS Facilities for assistance. Do not force the handle.



2. Stopping the Autoclave Mid-Cycle

If a cycle must be stopped before completion, use one of the following methods, as appropriate to the situation.

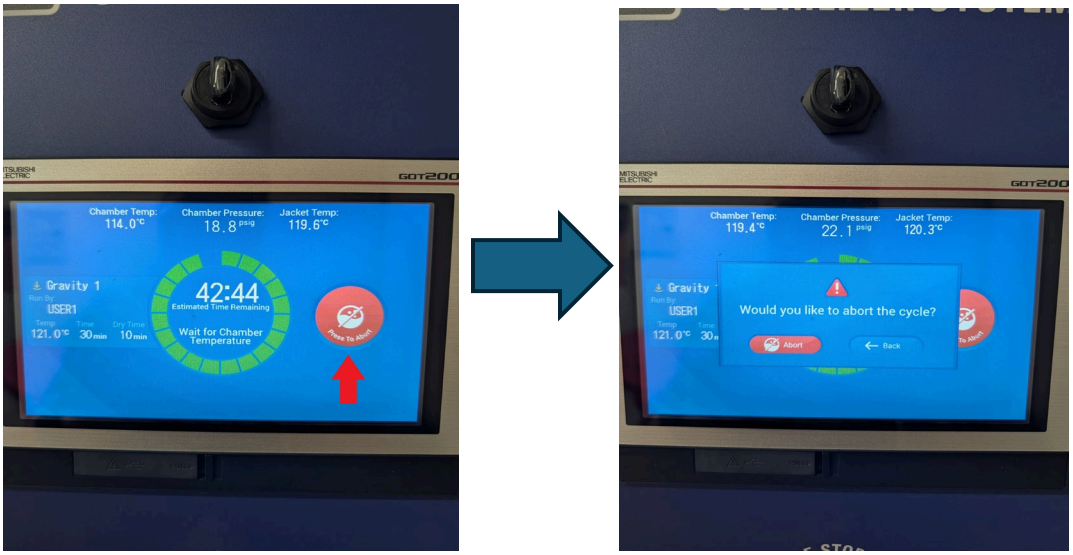
Method 1: Abort Cycle

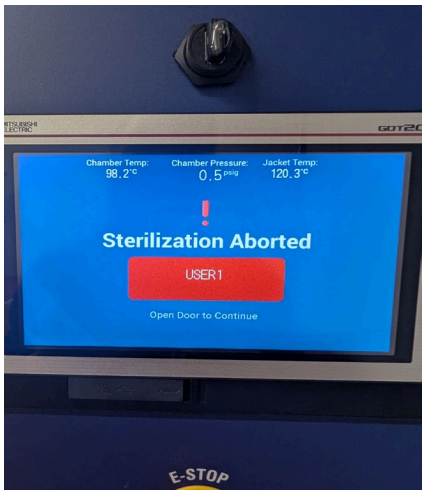
Use the touchscreen's abort function when a cycle needs to be stopped under non-emergency conditions.

1. While the cycle is running, press the **"Press to Abort"** button on the screen.
2. When the confirmation window appears, press **"Abort"** to confirm.
3. Allow the autoclave to complete its shutdown process.
4. Wait until the screen displays **"Sterilization Aborted."**

WARNING: DO NOT attempt to unseal or unlock the autoclave door until the "Sterilization Aborted" message is displayed.

Follow the normal door-opening procedure only after the required shutdown confirmation appears.





Method 2: Emergency Stop

Use the emergency stop button in an emergency, such as an uncontrolled release of steam during autoclave operation.

1. Locate the emergency stop button directly below the touchscreen.
2. Press the button to initiate an immediate shutdown of autoclave operations.
3. Confirm that the center of the button illuminates and that the message **"E-Stop Pushed"** appears in the lower-right corner of the screen.
4. Contact **SCS Facilities immediately** to report the emergency and describe what occurred.

WARNING: An emergency stop does not, by itself, confirm that the autoclave is safe to open. Do not attempt to open the door following an emergency stop unless the autoclave has been confirmed safe to open in accordance with the applicable emergency and shutdown procedures.

Do not resume operation until the cause of the emergency has been addressed and the autoclave has been cleared for use.



3. Important Safety Reminders

- **Verify materials:** Ensure that all materials, trays, and containers are suitable for autoclaving.
- **Select the correct cycle:** Confirm that the cycle parameters are appropriate for the load.
- **Protect the door mechanism:** Never overtighten the radial locking handle or force the door open.
- **Respond to steam leaks:** Stop the cycle if a door seal cannot be corrected safely.
- **Wait for confirmation:** Do not open the door until the appropriate cycle completion or shutdown message is displayed.
- **Report problems:** Contact SCS Facilities if the door mechanism is difficult to operate, steam continues to escape, or an emergency stop is activated.

When in doubt, stop operation and contact SCS Facilities rather than attempting to force the autoclave door or troubleshoot an unsafe condition.