

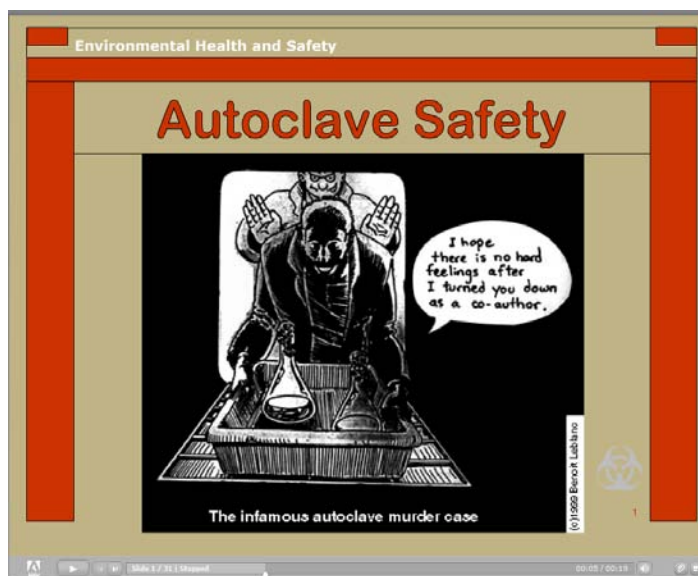
Primus Sterilizer Autoclave Operation Summary

02/06/2012 S.V.

Location: 3rd floor, Gilman Hall
Contact: Steve Veysey, 1234 Hach Hall

Safety

All users of this autoclave must complete the EH&S "Autoclave Safety" course available on-line at www.ehs.iastate.edu.



The steam sterilizer may only be operated by persons who understand the dangers and hazards associated with steam sterilization and are confident that they can safely use the autoclave for the intended purpose. The EH&S course discusses sterilization uses, hazards, and correct operational procedures.

EH&S has also developed two short videos available on-line that show proper and improper ways of loading an autoclave. These are located at <http://itunesu.iastate.edu/>. You will need to log in with your ISU netID, then navigate to the EH&S library of safety videos. These movies can also be accessed from the Safety page of the CIF website, www.cif.iastate.edu/Safety

Training Requirements

Before operating the sterilizer, you MUST be properly trained and authorized by CIF personnel! In addition to this operation summary, you will receive a complete copy of “Primus – Part III – Users Manual” during your training.

The PRIMUS General Purpose Steam Sterilizer features fully automatic, computer-controlled operation of all cycles, with applications for processing the following items:

- wrapped or unwrapped instruments
- vented glassware and flasks liquids
- culture media
- laboratory supplies
- other temperature and moisture stable materials

The Control System has four preprogrammed sterilization cycles (numbers 1 – 4) that should cover most applications without modification. There are four additional program spaces (numbers 5 – 8) that can be tailored for special applications. *Program modifications can only be implemented by authorized supervisory personnel!*

The LCD screen on the touchpad displays operation information. During programming, the LCD screen displays the settable parameter and its value. During operation, the LCD displays the phase, pressure, and temperature status of the cycle in progress. Any fault / error statements are also displayed on the LCD.

1. Power Up -Turn on the sterilizer power by pressing the **[ON]** button located on the control touchpad, about 45 minutes before you wish to use the instrument. This will allow the jacket to preheat. The LCD should display the cycle name and the jacket temperature.

2. Program Selection - Select program 1 – 4 by pressing the corresponding button **[1], [2], [3], [4]**. The nature and parameter listing for each program is posted on the face of the autoclave. For more information regarding program selection, refer to the Primus Manual – Part III – Users Manual. Please be aware that some of the parameter settings we have selected for use in programs 1 – 4 are not exactly the same as the settings given in the manual.

****NOTE*** If the control panel does not seem to be responding correctly, press **[ADV]** **[ADV]** twice. This should return the panel to its normal state. If not, contact CIF personnel immediately.*

3. Load Materials -The sterilizer door should open without excessive force. The unit contains safety features preventing the door from opening if the chamber is under pressure. Do not attempt to force the door. In some cases (an abnormal or

aborted cycle) it may be necessary to press and hold the **[DOOR]** button for several seconds in order for the door gasket to properly retract. This is NOT the normal situation. Report operation abnormalities to CIF personnel. After loading your materials, close the door GENTLY but firmly.

4. Starting the Cycle -The “READY” light will be lit when the jacket nearly reaches the operating temperature. When this occurs, the [START] button becomes operative. Press the **[START]** button to begin the cycle. The “READY” and “START” LED indicators will go out. The cycle proceeds automatically, with Operator Panel indicator lights and the LCD display monitoring phases and conditions throughout the cycle. The thermal printer also records the details of the operation cycle.

5. Cycle Completion -The Operator Panel “COMPLETE” LED indicator will come on and the buzzer will sound for two minutes, or until the door is opened. Remove your materials and GENTLY but firmly close the door. Check the paper printout for any error messages or abnormal operation warnings. You should sign the paper printout and save it for your records. *You MUST submit a copy of the paper printout to CIF personnel if it contains ANY warnings or error messages!*

6. Standby or Shutdown - The sterilizer returns to standby, jacket heated, awaiting the start of the next cycle. If you are finished with your work, do not plan to use the sterilizer later that day, and are unaware of any other persons intention to use the sterilizer later that day, press the **[OFF]** button on the control panel to turn off the sterilizer power.

7. Replacing the Thermal Paper - If the “end-of-paper” red stripe located along the edge of the paper is visible, contact CIF personnel or other authorized supervisory personnel immediately. *Do NOT attempt another run if the “end-of-paper” stripe is visible.*