

Using the Autoclave AC-48

The Autoclave is a simple way to completely sterilize the actual bioreactor apparatus and the yeast-glucose solution to ensure accurate results. The Autoclave is very easy to use as the settings are pre-programmed. However, it requires great caution as the equipment rapidly becomes extremely hot. This procedure also requires an extensive amount of time. The optimal time to sterilize the bioreactor is immediately after a run in preparation for the following day. Please notice that a temperature will not display until 80°C is reached. It is working, just be patient. The actual sterilization process is about 45 minutes.

The following caution must be noted:

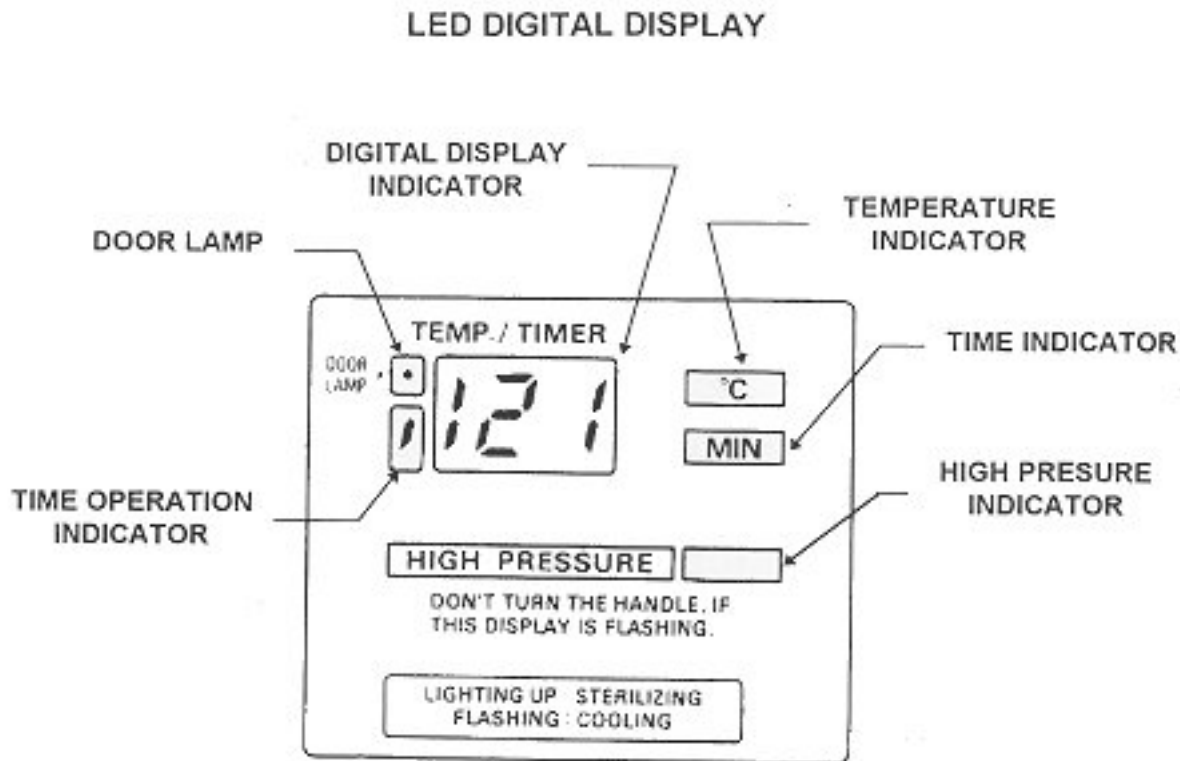
The top and front of the Autoclave is **VERY HOT!!!** So, do not touch it once it has been started. **ALSO**, at approximately 97°C the Autoclave begins spitting hot water and steam out of a small opening at the front of the machine. Do not stand in front of the machine at this time. The steam and water will continue to spew out of the machine until about 101°C or until the reactor has shut down (the loud noise stops).

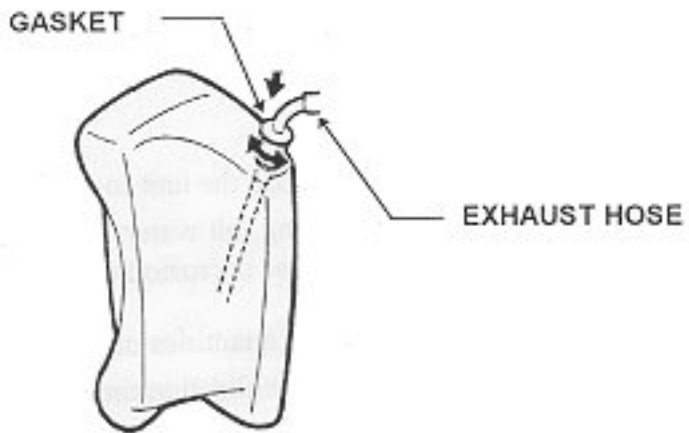
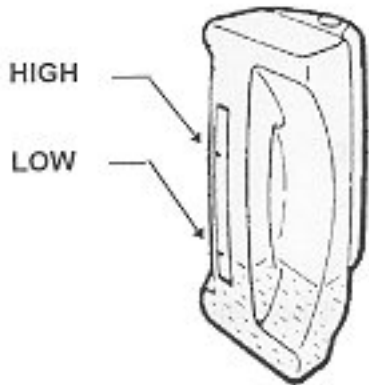
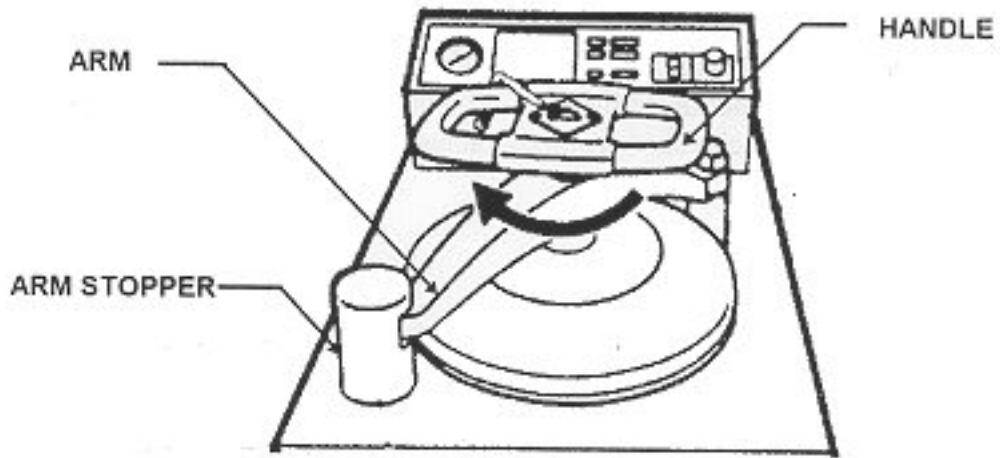
Procedure:

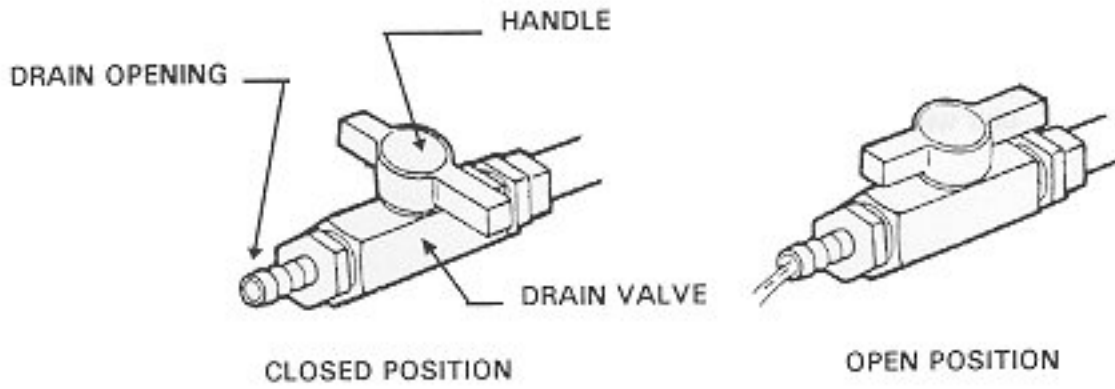
1. Open the lid to the Autoclave.
2. Fill the Autoclave with DI water to a level ½ inch below the bottom removable pan.
3. Place one wire bucket inside for the bioreactor apparatus or two wire buckets for the solution. These

are for the object to sit in.

4. Slowly and carefully lower the object into the Autoclave. The bioreactor apparatus will need its instruments arranged so that it will fit.
5. Close the lid and connect the safety chain.
6. Press start.
7. Allow space and time for the sterilization (over 1 hour).
8. Allow plenty of cooling time before attempting to open the lid (about 3 hours). Remember the Autoclave is at very high pressure.
9. Finally, carefully open the lid, remove the object, and close the lid.







<i>Symptom</i>	<i>Possible Cause</i>	<i>Solution</i>
<p>Dry Scorch</p>	<p>There is insufficient water for sterilization in the chamber</p> <p>EXHAUST KNOB not fully closed</p> <p>DRAIN VALVE not closed</p>	<p>Replenish the sterilization water</p> <p>Close EXHAUST KNOB</p> <p>Close DRAIN VALVE</p>
<p>Thermistor Error</p>		<p>Contact local New Brunswick Scientific Service Department</p>
<p>Door Open</p>	<p>The MAGNETIC-LATCH is not connected to the SAFETY SWITCH while the temperature of the chamber is over 99°C.</p>	<p>Confirm that the door is securely closed. Attach MAGNETIC-LATCH to SAFETY SWITCH</p>

MAIN UNIT (FRONT VIEW)

