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| Revision:<br>---- | Document Code:<br>WI- ML- 2208 | Standard Operating Procedure (SOP) for THELCO Incubator<br>Operation |  <p>دانشگاه علوم پزشکی<br/>و خدمات بهداشتی و درمانی استان تهران<br/>دانشکده پزشکی</p> |
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## Operating and Maintenance Instructions: Thelco 6M Incubator (Iranian-made)

### 1. Purpose

To provide standard operating procedures for the Thelco 6M incubator, designed to maintain precise temperatures for microbial growth.

### 2. Scope of Application

The device is intended to maintain stable temperatures ranging from  $0^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ .

3. Responsibility: Laboratory experts are responsible for the correct implementation of these procedures.

### 4. Operating Procedures

- Power & Control:** Turn on the device using the power switch. Set the desired temperature using the rotary knob. The effective operating range is  $5^{\circ}\text{C}$  above ambient temperature up to  $100^{\circ}\text{C}$ .
- Environmental Requirements:** For optimal temperature stability, the ambient temperature should not exceed  $30^{\circ}\text{C}$ .
- Humidity:** A maximum relative humidity of 40% can be achieved by placing a water tray inside the incubator.

### 5. Safety Precautions

- Electrical Safety:** Always disconnect the device from the power source before cleaning or performing maintenance.
- Contamination Control:** Before any repair, ensure the incubator has been decontaminated, cleaned, and unplugged.
- Operational Discipline:** Ensure the door is properly closed and minimize the duration it remains open.
- Sample Placement:** Ensure all samples are placed securely on the trays or shelves.

### 6. Maintenance Guidelines

- Cleaning:** Clean interior and exterior surfaces with a soft cloth dampened with a mild cleaning solution.
- Disinfection:** Perform a thorough cleaning/disinfection monthly, and immediately in the event of any infectious spills, using 10% hypochlorite solution or Deconex.
- Electrical Protection:** Prevent any cleaning agents from coming into contact with electrical components. Ensure the interior is completely dry before reconnecting the device to the power supply.
- Efficiency:** Close the door promptly after accessing the chamber to prevent heat loss.
- Monitoring & Calibration:** Measure the internal temperature daily using a calibrated thermometer. Record the readings twice daily on the temperature chart.
- Reporting:** If the incubator temperature deviates from the acceptable range, immediately notify the laboratory supervisor.

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