

Revision ----	Document Code WI- ML-2765	Standard Operating Procedure (SOP) for Zhale Equipment Laminar Flow Hood (Model: JTLVC2)	 وَأَشْرِكُوا فِي عَمَلِكُمْ وَمَا يَشَاءُ اللَّهُ فَيَعْلَمُ سِرَّهُ وَمَنْ يَشَاءُ اللَّهُ فَيَعْلَمُ سِرَّهُ
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Standard Operating Procedure (SOP): Laminar Airflow Cabinet (Zhal-Tajhiz JTLVC2)

1. Objective:

To describe the proper operation and maintenance of the Iranian-made Zhal-Tajhiz Laminar Airflow Cabinet (Model: JTLVC2).

2. Scope:

This device is intended for use in laboratories working with microorganisms where there is a high risk of aerosol dispersion. The laminar flow hood is utilized to protect both laboratory personnel and the environment from airborne aerosol contamination.

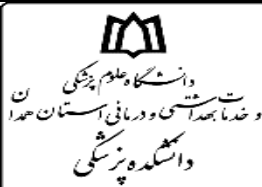
3. Responsibility:

The responsibility for implementing this procedure lies with the respective laboratory experts.

4. Operating Procedure:

- To ensure a clean environment, turn on the main power and set the fan switch to the “ON” (I) position.
- Pre-operation:** The fan must be turned on at least 5 minutes before beginning work to allow for the filtration of all particles within the cabinet.
- Note:** When using the Biosafety mode, the front sash must be kept lowered to the designated limit (23 cm) to maintain optimal airflow. A narrower opening further reduces the risk of environmental contamination.
- The device is equipped with an audible alarm that activates if the sash opening exceeds the safety limit (23 cm).
- Post-UV usage:** After turning off the UV lamp, leave the fan running for at least 5 minutes to ensure all ozone gas produced by the UV lamp is exhausted from the cabinet.
- Safety:** UV radiation is harmful to skin and eyes. Ensure the front sash is completely closed when the UV lamp is in operation. UV rays cannot penetrate the Plexiglas’s used in this device.
- Set the MAIN SWITCH to the “ON” (I) position.
- Set the FLUORESCENT switch to the “ON” (I) position.
- Activate other switches as required for your specific task. Upon completion, clean the cabinet work surface and side glass panels.

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شماره صفحه: ۱ از ۲	تاریخ و امضاء:	تاریخ و امضاء:	تاریخ و امضاء:

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5. Safety Guidelines:

- Clean the work surface and side glass panels after every use.
- Keep the cabinet sash closed during general room cleaning.
- **Surface Care:** Do not use corrosive or acidic substances on the stainless steel work surface; use only a cloth dampened with water or alcohol spray. **Important:** Do not use alcohol on the front plexiglass door, as it will cause clouding/opacification.
- **Gas Valve:** To operate, push the yellow handle inward slightly and then turn it counter-clockwise.
- **Warning:** Ensure all connection hoses are securely fastened with clamps before use.

6. Maintenance Guidelines:

- **Flame Safety:** The maximum allowable flame height inside the biosafety cabinet is 32 cm from the base. Keep the flame as low as possible. Excessive flame height can damage the ceiling filter and deform the lighting fixture cover.
- The fan must be running at all times when a flame is being used inside the cabinet.

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