

Revision ----	Document Code WI- ML- 3764	Standard Operating Procedure (SOP) for Snowa TWIN COOL Refrigerator-Freezer	 دانشگاه علوم پزشکی و خدمات بهداشتی و درمانی آستان قدس دانشگاه ویرجیلی
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Operating and Maintenance Instructions: Snowa Twin Cool Refrigerator/Freezer

1. Purpose

To provide clear guidelines for the operation and maintenance of the Iranian-made Snowa Twin Cool refrigerator/freezer in laboratory settings.

2. Scope of Application

This unit is intended for storing laboratory materials within the following temperature ranges:

- **Refrigerator:** 0°C to 8°C.
- **Freezer:** -15°C to -25°C.

3. Responsibility

Laboratory staff are responsible for the correct implementation of these operating procedures.

4. Operating Instructions

- **Power On/Off:**
- **Refrigerator Compartment:** Press and hold **REF** until the icon flashes, then press **POWER**. The fridge fan will turn off. The freezer will continue to operate normally.
- **Freezer Compartment:** Press and hold **FRZ** until the icon flashes, then press **POWER**. The freezer section will shut down.
- **Standby Mode:** If both compartments are turned off, the unit enters Standby mode (display turns off, no cooling). To exit, press and hold **POWER** for 3 seconds.
- **Lock/Unlock:**
- **Unlock:** Press and hold **REF** and **FRZ** simultaneously for 5 seconds until the lock icon disappears.
- **Lock:** The display auto-locks after 30 seconds of inactivity. In locked mode, only the **SUP/MUT** button is functional (during alarm states).
- **Temperature Adjustment:**
- **Refrigerator:** Press **REF** (icon flashes), then use **TEMP/CLK** to set the temperature between 1°C and 7°C. (Recommended: 4°C in summer, 5°C in winter).
- **Freezer:** Press **FRZ** (icon appears), then use **TEMP/CLK** to set the temperature between -15°C and -25°C. (Recommended: -20°C in summer, -18°C in winter).

تاریخ اجرا:	تصویب کننده:	تأید کننده: دکتر محمدرضا عربستانی	تهیه کننده: مسعود مقدم شکیب
تاریخ بازنگری:	سمت:	سمت: مدیر گروه میکروبیشناسی	سمت: کارشناس آزمایشگاه
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5. Safety Precautions

- **Grounding:** Always connect to a grounded (earthed) electrical outlet.
- **Cleaning Safety:** Disconnect the power cable from the outlet before performing any cleaning or maintenance.
- **Moisture Hazard:** Do not pour water directly onto the compressor or electrical components.

6. Maintenance and Cleaning

- **Fault Detection:** The system features a built-in self-diagnostic tool. If a fault occurs, a wrench icon will appear.
- **Service Error:** If a sensor, defrost component, or refrigerant issue is detected, the display will show “H1” or “SERVICE”.
- **Cleaning Materials:** Use a sponge, mild dish soap, old toothbrush, kitchen towels, and gloves.
- **Recommended Solutions:** Mix 1 tablespoon of baking soda in 1/4 cup of warm water, OR mix equal parts water and white vinegar.
- **Exterior & Gaskets:** Clean external surfaces with the vinegar solution and wipe dry with a towel. Use the same solution to clean door gaskets, ensuring they are dried thoroughly afterward.

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