

Hamilton Safe Aire Fume Hood

SAFE OPERATING INSTRUCTIONS

(Read Before Use)

WARNINGS

- **TRAINING REQUIRED:** Do not use without proper training from your safety officer.
- **NOT FOR PERCHLORIC ACID:** This hood is NOT designed for perchloric acid procedures.

BEFORE STARTING

1. Check Monitor: Verify the air flow monitor indicates normal operation.
2. Position Sash: Do not operate with the sash fully open. Keep it at the recommended height.

DURING USE

3. Set Back Materials: Place all chemicals and apparatus at least 6 inches (15 cm) behind the sash.
4. **Do Not Block Airflow:**
 - Keep materials away from rear baffles.
 - Elevate large equipment to allow air flow underneath.
 - This is a work zone, not a storage cabinet.
5. **Keep Head Out:** Never put your head inside the hood.
6. **Wear gloves and a lab coat.**
7. **Control Drafts:** Avoid rapid movements. Keep nearby doors, windows, and fans closed.

EMERGENCIES & SPILLS

8. **Clean Spills Immediately.**
9. **If You Smell Fumes: STOP**, close the sash immediately, and contact your safety officer.

DRY STERILIZER “GIMETTE 7”

SAFE OPERATING INSTRUCTIONS

Please read carefully before using your GIMETTE unit.

 **Power:** Use only 230V outlets. Inspect cords before use.

 **Setup:** Place on a stable, heat-resistant surface. Keep away from water, curtains, and flammable materials.

 **Operation:** Set temperature (0-200°C) and timer (0-120 min).

-  Green = Timer on
-  Orange = Heating
-  Red = ALARM– **Stop** immediately

 **Safety:** Do not block vents. Avoid touching hot surfaces. Open carefully to avoid steam.

 **Care:** Unplug and cool down before cleaning. Wipe with a dry cloth – never immerse in water. Only qualified personnel should attempt repairs.

LabTech Drying Oven

SAFE OPERATING INSTRUCTIONS

Quick reference guide – read before use

POWER

- Use a grounded electrical outlet. Inspect the power cord before each use.

PLACEMENT

- Place on a flat, heat-resistant surface. Keep away from water, flammable materials, and curtains. Ensure adequate airflow around the unit.

OPERATION

- Set temperature between ambient +5°C and 250°C, heats to 250°C in 25 minutes.

LOADING

- Do not overload the racks. Leave space between samples for air circulation. Never dry flammable, volatile, or explosive materials.

SAFETY

- Hot surfaces, wear gloves, Open door slowly – steam risk.

ALARM

- If alarm sounds: Stop operation immediately, Investigate cause.

CLEANING

- Unplug and cool down before cleaning. Wipe with a dry cloth – never immerse in water.

REPAIRS

- Only qualified technicians should attempt repairs or open the unit.

Follow these instructions – stay safe.

Analog Water Bath

SAFETY STEPS FOR YOUR ANALOG WATER BATH

✓ BEFORE USE

- ✓ Switch POWER OFF before filling.
- ✓ Use distilled water only.
- ✓ Check water level is correct.

⚠ DURING USE

- ✓ Turn POWER ON.
- ✓ Turn dial to your desired temperature.
- ✓ Watch for Heater light – ON means heating.
- ✓ Wait for water to reach temperature before adding samples.

⬮ SAFETY NOTES

- ✗ **DO NOT** leave unattended while in use.
- ✓ **MUST** monitor temperature continuously.
- ✓ **ALWAYS** verify with separate thermometer.

🧼 HYGIENE

- ✓ Clean regularly.
- ✓ Change water frequently.

SPEX SamplePrep 6970EFM Freezer/Mill

SAFE OPERATING INSTRUCTIONS

CRITICAL HAZARDS

- Asphyxiation:** Liquid nitrogen (LN_2) displaces oxygen. Use only in well-ventilated areas.
- **Cryogenic Burns:** LN_2 is “-196°C”. Avoid skin contact with cold surfaces or liquid.
- **Pressurization:** Trapped LN_2 expands rapidly. Ensure vents are clear.

BEFORE USE

1. **Training Required:** Do not operate without cryogen safety training.
2. **Inspection:** Check vials, O-rings, hoses, and door interlock for damage.
3. **PPE:** Wear cryogen gloves, face shield, apron, and closed-toe shoes.

DURING USE

4. **Load Safely:** Secure vials before starting auto-fill.
5. **Monitor:** Watch for leaks or ice buildup.
6. **Keep Clear:** Do not open door during operation. Keep face away from vents.

EMERGENCIES

7. **Skin Contact:** Flood with lukewarm water (40°C max). Do not rub. Seek medical help.
8. **Oxygen Alarm:** Evacuate immediately if alarm sounds or you feel dizzy.

MAINTENANCE

- Keep dry. Inspect seals regularly. Only trained personnel should service the unit.

Centurion Scientific C 2 Series Centrifuge

⚠ READ BEFORE USE ⚠

🔒 CHECK LID IS SECURELY CLOSED

The machine will NOT start unless the lid is properly shut.

⚖ BALANCE TUBES EVENLY

Opposite tubes must have equal weight. The imbalance sensor will bring the rotor to a controlled stop if needed.

🔪 CHECK TUBE LENGTH

Tubes that are too long may stop rotation and cause a "Tacho" error.

🚨 EMERGENCY RELEASE

Use the manual lid release in case of power failure.

DO NOT:

- Bypass safety interlocks
- Open the lid during operation
- Use damaged tubes or rotors

🧼 KEEP BOWL CLEAN AND DRY

JENWAY 7300 SPECTROPHOTOMETER

SAFETY INSTRUCTIONS

⚠ READ BEFORE USE ⚠

🔌 POWER

- Use ONLY supplied 24V PSU
- Keep 200mm clearance for ventilation
- Never move while connected to mains

🧴 SAMPLES

- NO flammable/hazardous substances
- Handle cuvettes by top/bottom only
- Wipe spills immediately
- Plastic cuvettes = single use only

⚡ OPERATION

- Lid MUST be closed during measurement
- HOT surface - allow lamp to cool
- Do NOT look at light source

🔧 MAINTENANCE

- NO user-serviceable parts inside
- Lamp replacement: disconnect power & cool first
- Do NOT touch new lamp glass

🚨 FAULTS

- Stop use if safety impaired
- Contact service - DO NOT repair yourself

Labtech Shaking Incubator

SAFE OPERATING INSTRUCTIONS

⚠️ **READ BEFORE USE** ⚠️

🔒 **CHECK THE DOOR IS SECURELY CLOSED**

The shaking function will "NOT " start if the door is open. The safety interlock cuts power to the motor when opened.

⚖️ **BALANCE THE LOAD EVENLY**

Secure all flasks tightly on the platform. An unbalanced load causes strong vibrations and may break glassware.

💨 **ALLOW PROPER VENTILATION**

Keep at least **20 cm** clearance around the unit. Prevents motor overheating and fire risk.

💡 **USE THE INTERIOR LAMP**

Press the LAMP button to observe samples through the glass window. Do not open the door during operation to maintain stable temperature.

🔴 **RESPECT THE ALARM SYSTEM**

If the alarm sounds and the SAFETY light turns red, stop operation immediately and check the load.

❌ **DO NOT:**

- Open the door while the platform is moving.
- Exceed the maximum speed (300 RPM).
- Place the unit near heat sources or direct sunlight.
- Use damaged or unbalanced glassware.
- Block the ventilation openings.

🧼 **KEEP CHAMBER CLEAN AND DRY**

Regularly wipe the stainless-steel interior. Prevents corrosion and contamination.

KERN Analytical Balance



SAFE OPERATING INSTRUCTIONS

DO:

- ✓ Use only on a flat, stable surface away from drafts, heat, and vibration.
- ✓ Level the balance before use (check bubble level).
- ✓ Allow warm-up time for accurate results.
- ✓ Use only original KERN power adapter.
- ✓ Clean gently with a damp, soft cloth—no liquids inside.

DON'T:

- ✗ Never overload—respect max capacity.
- ✗ No dynamic weighing (e.g., draining liquids).
- ✗ Avoid permanent load on weighing plate.
- ✗ Do not use in explosive areas—not explosion-proof.
- ✗ Never modify or open the housing—risk of damage and voided warranty.

⚠ Always disconnect power before cleaning or connecting peripherals.

Hanna Instruments pH 210 pH Meter

SAFETY PRECAUTIONS

ELECTRICAL SAFETY

- Use only the supplied 12 VDC adapter .
- Unplug before cleaning.
- Ensure main line is protected by a fuse.

ELECTRODE HANDLING

- Do NOT touch the glass bulb—it is sensitive to electrostatic discharge.
- Wear ESD wrist straps during operation to avoid electrode damage.
- Never store in distilled water—use proper storage solution (HI 70300).
- Rinse thoroughly between samples to avoid cross-contamination.

OPERATING ENVIRONMENT

- Indoor use only: 0–50 °C, max. 95% RH non-condensing.
- No microwave ovens—risk of damage or burns.

MAINTENANCE

- Inspect cables and connectors regularly.
- Do not modify the instrument—will void warranty and degrade EMC performance.

Tau Sterile 2000 | Dry Sterilizer

Essential Safety Information – Read Before Use

⚠ PAY ATTENTION – NO AUTOMATIC ALARMS

This sterilizer does not have alarms. You must stay with it during operation.

✅ ALWAYS:

- Wear heat-resistant gloves – the inside gets very hot.
- Make sure instruments are completely dry before loading.
- Keep the sterilizer at least 10 cm away from walls and other objects.
- Unplug and let it cool down completely before cleaning.

❌ NEVER:

- Sterilize wet, flammable, or toxic materials.
- Leave it unattended while running.
- Block the air vents or overload the trays.
- Try to repair it yourself – ask a professional.
- Use it if the power cord is damaged.

🧤 Stay safe. Stay smart. Read the full manual before use.

HistoPro 3030 Slide Stainer

Quick Safety Reference – Read Before Use

ELECTRICAL SAFETY

- Use ONLY a grounded (earthed) outlet.
- Check power cord regularly for damage.
- Disconnect power before cleaning or servicing.

FIRE & CHEMICAL SAFETY

- Flammable reagents (xylene, alcohol) –NO open flames within 2 meters.
- Keep reagents away from heating stations.
- Use fume shield or connect exhaust hose – toxic fumes hazard.
- Obtain and follow MSDS for all chemicals.
- No smoking, eating, or drinking near the stainer.

PERSONAL PROTECTION

- Wear lab coat, gloves, and safety goggles when handling reagents.
- Hot surfaces (heating stations) – DO NOT TOUCH – burn risk.
- Samples may be biohazardous– handle with universal precautions.

MECHANICAL SAFETY

- Moving parts– keep hands and objects clear during operation.
- **ALWAYS** load racks through Load Station 30 only.
- **NEVER** place or remove racks from processing stations manually.
- Wait for racks to arrive at Unload Stations 21 or 22 before removal.

CLEANING & MAINTENANCE

- Unplug and cool down before cleaning.
- Wipe spills immediately – solvent resistance is limited.
- DO NOT use acetone, xylene, or abrasive cleaners on surfaces.
- Clean reagent vessels in dishwasher max 65°C only.
- Replace charcoal filter every 3 months

EMERGENCY

- If alarm sounds or malfunction occurs: power off and unplug.
- For service: contact qualified technician only– unauthorized repairs void warranty.

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Lab Refrigerator: Safety Instructions

ELECTRICAL SAFETY

- Use only a dedicated, grounded outlet– no extension cords or power strips.
- Ensure adequate ventilation (at least 4 inches clearance around unit).
- Unplug before cleaning or maintenance.

CHEMICAL & BIOLOGICAL SAFETY

- NO food or drinks– for laboratory use only.
- Store only biological samples, media, reagents, and lab supplies.
- All containers must be labeled with contents, date, and owner.
- Use secondary containment (trays) to catch spills.
- Not for flammable materials unless the unit is explosion-proof rated.

TEMPERATURE CONTROL

- Maintain temperature range: +2°C to +8°C (unless otherwise specified).
- Monitor temperature regularly – report deviations immediately.

MAINTENANCE

- Keep door gaskets clean and intact.
- Report malfunctions promptly – do not attempt unauthorized repairs.

SPILL PROCEDURE

- Wear appropriate PPE (gloves, lab coat, goggles).
- Contain and absorb spills immediately.
- Dispose of contaminated materials per lab guidelines.
- Contact EHS for hazardous spills.

LabTech Autoclave (Steam Sterilizer)



SAFE OPERATING INSTRUCTIONS



BEFORE USE

- Check water level in the chamber before operation.
- Using distilled water is recommended.
- Close chamber door tightly when in use.



DURING OPERATION

- Do NOT touch autoclave during operation – risk of burns.
- Keep away from autoclave at least 50cm during operation.
- Do NOT heat over 135°C.
- If pressure exceeds 2.4 kg/cm², turn off immediately.



OPENING THE DOOR

- Turn the manual safety valve whenever opening the chamber door.
- Hot steam will escape – open carefully.



MAINTENANCE & SUPPORT

- Contact local representative for technical or safety issues.



OPERATING STEPS

1. Press Mode button to set temperature.
2. Press Mode button again to set time.
3. Press Start to begin sterilization.
4. Timer counts down automatically.
5. After END signal and beep:
 - Press Stop
 - Open safety valve
 - Open chamber door

Autoclave Operating Precautions

✓ BEFORE USE

- Plug into a grounded outlet matching the device's voltage rating.
- Fill chamber with distilled water only up to the heater stand.
- Close lid and tighten knobs diagonally (pairwise) for an even seal.
- Do not overload the chamber.

⚠ DURING OPERATION

- Set thermostat knob to GREEN ZONE and close the release valve.
- Target Pressure: 15 PSI. Monitor the gauge closely.
 - Below 15 PSI → Turn thermostat UP slightly.
 - Above 15 PSI → Turn thermostat DOWN slightly.
- MAX PRESSURE: [INSERT CORRECT VALUE e.g., 15 PSI] – Do not exceed.
- NEVER open the lid while pressurized. Risk of explosion and severe burns.
- Maintain a safe distance (min. 50cm). Stay nearby to monitor.

🔴 IF ALARM SOUNDS / CYCLE COMPLETE

- Stop operation immediately.
- Allow unit to vent and cool naturally.
- Do not attempt to open lid until pressure gauge reads ZERO (0 PSI).

🧼 AFTER USE & MAINTENANCE

- Ensure pressure is 0 PSI before slowly opening lid. Open away from face.
- Unplug the unit before cleaning.
- Drain remaining water from the chamber after use.

MEMMERT HEATING & DRYING OVEN

SAFE OPERATING INSTRUCTIONS

 Max Temperature: 220°C | Power: 220V / 1400W

1. **CRITICAL SAFETY WARNINGS**

- Electric Shock: Disconnect the mains plug before removing any covers. Only qualified electricians should handle electrical components.
- Explosion Hazard: NEVER load materials that emit poisonous or explosive vapors. This unit is NOT explosion-proof.
- Tipping Risk: Due to its center of gravity, the unit can tip forward. Always ensure it is securely anchored or balanced.
- Burn Protection: Interior surfaces remain extremely hot even after switching off. Always wear heat-resistant gloves.

2. **BEFORE USE**

- Grounding: Connect only to a grounded outlet (220V/60Hz).
- Manual First: Read the full operating manual before the first use.

3. **DURING OPERATION**

- Temp Limit: Maximum temperature is 220°C—do NOT exceed this limit.
- Verification: Regularly cross-check the dial setting with the manual glass thermometer.
- Ventilation: Adjust the top air slide (0–6) to manage moisture and ensure adequate ventilation.
- Intended Use: Use strictly for heating or drying suitable, non-hazardous materials.

4. **EMERGENCY & MAINTENANCE**

- Instant Stop: If a malfunction occurs, stop operation immediately and unplug the unit.
- Service: Contact qualified service personnel only; unauthorized modifications void the warranty.
- Cleaning: Allow the unit to cool completely and disconnect power before cleaning.

Mummert Incubator

SAFE OPERATING INSTRUCTIONS

Precision Incubator: Ambient +10°C to 70°C.

⚠ CRITICAL WARNINGS

- No Explosives: Strictly prohibited to load materials emitting flammable or toxic vapors; unit is NOT explosion-proof.
- Electrical Safety: Use only grounded outlets; disconnect mains plug before cleaning or maintenance.
- Tipping Risk: Secure unit against falling; do NOT climb on the appliance.
- Burn Hazard: Surfaces remain hot after use; wear heat-resistant gloves when handling loads.

✅ BEFORE USE

- Read Manual: Essential to follow all operating and maintenance instructions for safety.
- Dust Control: Keep surroundings clean to prevent dust-related short-circuits.

🌡 DURING OPERATION

- Temp Range: Operate strictly between Ambient +5°C and 70°C.
- Air Flow: Manually regulate air flow using the slide control for your specific application.
- Intended Use: Designed for incubating live cultures (at 37°C), research, and food analysis.

🔥 MALFUNCTION & EMERGENCY

- **Instant Stop:** If a fault occurs, power off and unplug immediately.
- **Authorized Repair:** Only qualified electricians may perform technical work.

FN 032 Dry Heat Sterilizer

Safe Operating Guide

CRITICAL WARNINGS

- **No Explosives:** Strictly prohibited to load materials emitting flammable vapors; always use the adjustable outlet port for proper vapor exhaustion.
- **Electrical Safety:** Ensure the unit is connected to the correct power supply (230 V, 50/60 Hz). Disconnect power before any maintenance.
- **Burn Hazard:** Internal surfaces and loads reach up to **250°C**. Use heat-resistant gloves when handling materials.
- **Safety Backup:** An independent gas expansion safety thermostat is built-in to take control in case of a primary system failure.

BEFORE USE

- **Check Parameters:** Set your required temperature and time via the dual digital display.
- **Chamber Prep:** Ensure the stainless-steel inner chamber is clean; its smooth surfaces are designed for easy decontamination.
- **Shelf Setup:** Confirm shelves are secured using two shelf carriers per shelf (Part: K 23 049 for FN 032).

DURING OPERATION

- **Temp Range:** Operate strictly between **Ambient +5°C to 250°C**.
- **Air Flow:** Use the adjustable outlet port to manage vapor exhaustion during the heating process.
- **Alarm Monitoring:** If the temperature drifts outside sterilization conditions (e.g., during a power failure), the system will trigger a preset alarm.

MALFUNCTION & EMERGENCY

- **Automatic Cut-off:** If the microprocessor fails, the independent safety thermostat will automatically take over control.
- **Authorized Service:** Technical modifications or repairs should only be handled by authorized personnel.