



Model 2900 Humidity Generation System

Safety Information

Introduction

This document supplies safety information for the Model 2900 Humidity Generation System (the Product).

Safety Information

Important safety guidelines need to be observed when operating this equipment. Precautions are highly advisable so that no personal injury will occur during the operation and maintenance of the system. Observation of local and national regulations must be adhered to regarding safety standards.

FCC Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Symbols

The symbols used in the manuals and on the Product are shown below in table 1-1.

Warning indicates a potential hazard may exist and the user should be extremely careful.

Caution! identifies a condition or action that may cause damage to the system or the user.








Symbol	Description
	This symbol is shown from the WEEE directive and indicates do not dispose of this product in any municipal waste area.
	This symbol means Caution and should be observed or important information.
	This symbol indicates a potential shock hazard may exist.
	This symbol means Earth Ground.
	This symbol denotes Heat or Hot Surface, or Gases.
	This symbol signifies Carefully read all instructions.
	See FCC Statement above.

Table 1-1

 **Warning!**

To prevent possible electrical shock, fire, or personal injury:

- Carefully read all instructions.
- Read all safety information before using the Product.
- Read and understand the safety data sheet (SDS) supplied with the purchased methanol and take necessary precautions.
- Use this Product indoors only.
- Position the Product so that the main power cord is always accessible.
- Replace the power cord if the insulation is damaged or shows signs of wear.
NOTE: The power cord is a safety-critical component. The user must not replace the power cord with an inadequately rated alternative.
- Do not use an extension cord or adapter plug.
- Do not alter the Product. Use only as specified, or the Product's protection features can be compromised.
- Do not use the Product if it is altered or damaged.
- Do not use the Product around explosive gas, vapor, or in damp/wet environments.
- Ensure the power cord's ground conductor is connected to a protective earth ground. Disruption of the protective earth ground could put lethal voltage on the Product's chassis.

- Ensure the space around the Product meets minimum requirements.
- Use only specified replacement parts.
- Ensure only trained personnel perform repairs to the Product.
- Do not operate the Product with electrical cover removed. Exposure to Hazardous voltage is possible.

 **Warning: High Pressure**

- High pressure gases are potentially hazardous. Energy stored in these gases can be released suddenly and with extreme force. Proper safety precautions must be taken when applying any pressure to the Product. Before applying pressure to the Product, ensure all pneumatic connections are properly secured and tightened. Ensure all pressure settings are set to the proper values before operation, testing, calibration or maintenance is performed.
- POSSIBLE INJURY! The tubing, valves, and other apparatus attached to the Product must be adequate for the maximum applied pressure, otherwise, physical injury to the operator or bystanders is possible.
- USE THE PROPER PRESSURE MEDIUM! Use only clean, dry, gaseous nitrogen or CO2-free air unless otherwise specified by Thunder Scientific.

 **Warning: This Product contains 16 oz. of R-134a refrigerant**

R-134a EMERGENCY OVERVIEW: Colorless, volatile liquid with an ethereal and faint sweetish odor. Non-flammable material. Overexposure may cause dizziness and loss of concentration. At higher exposure levels, CNS depression and cardiac arrhythmia may occur. In confined spaces, vapors displace air and can cause asphyxiation. At higher temperatures, (>250°C), decomposition will occur resulting in the possible production of Hydrofluoric Acid (HF) and carbonyl halides.

 **WARNING: R-134a POTENTIAL HEALTH HAZARDS**

- SKIN: Irritation would result from a defatting action on tissue. Liquid contact could cause frostbite.
- EYES: Liquid contact can cause severe irritation and frostbite. Mist may irritate.
- INHALATION: R-134a is low in acute toxicity in animals. When oxygen levels in air are reduced to 12-14% by displacement, symptoms of asphyxiation, loss of coordination, increased pulse rate and deeper respiration will occur. At high levels, cardiac arrhythmia may occur.

- **INGESTION:** Ingestion is unlikely because of the low boiling point of the material. Should it occur, discomfort in the gastrointestinal tract from rapid evaporation of the material and consequent evolution of gas would result. Some effects of inhalation and skin exposure would be expected.

  ***Caution: Electrostatic Discharge***

Electrostatic discharge (ESD) could possibly damage or destroy solid-state parts when exposed to static electric discharges. Be aware because electrostatic discharges may not be seen, felt or heard at levels less than 4,000 volts.

 ***Personal Protective Equipment (PPE)***

Safety glasses must be worn when performing maintenance, repairs or calibration when system panels have been removed.