



EDGE  FLYTE

BIMS

BALLOON INFLATION AND MEASUREMENT SYSTEM

USER MANUAL

Thank you for purchasing the Weather Balloon Inflation System. This equipment has been designed to safely and efficiently inflate meteorological balloons for research, atmospheric measurement, and educational applications.

Intended Users:

This system is intended for trained personnel in meteorology, atmospheric sciences, or related fields. It is not a toy and must not be used by untrained individuals.

General Safety Warnings

- Only operate in well-ventilated outdoor environments.
- Keep children and unauthorized persons away from the equipment.
- Secure gas cylinders upright at all times to prevent tip-over.

Gas-Specific Hazards

Helium: Non-flammable but can displace oxygen, leading to asphyxiation in enclosed areas.

Hydrogen: Extremely flammable. May ignite from static discharge, open flames, or sparks.

Required Personal Protective Equipment (PPE):

- Safety glasses or goggles
- Protective gloves (non-static for hydrogen use)

Emergency Procedures:

GAS LEAK: Shut off cylinder valve immediately, evacuate area, and ventilate.

FIRE (HYDROGEN): Use Class B fire extinguisher. Do not use water.

ASPHYXIATION RISK: Move affected person to fresh air and seek medical attention immediately

WARNING:

Never use hydrogen indoors or near electrical equipment, flames, or heat sources.

Never inhale helium or hydrogen. Both can cause unconsciousness or death.

Never leave pressurized cylinders unsecured.



Liability Release and Safety Disclaimer

IMPORTANT – READ CAREFULLY BEFORE USE

By using this weather balloon inflation system (hereafter referred to as the System), you agree to the following terms and conditions. Failure to read, understand, and follow all safety instructions may result in serious injury, death, or property damage.

1. Intended Use

The System is designed exclusively for the inflation of weather balloons using either helium or hydrogen gas. It is not intended for any other application, nor for use with any gas not specified in this manual.

2. Assumption of Risk

You acknowledge that the use of helium and hydrogen gases involves inherent hazards, including but not limited to:

Helium: Asphyxiation risk in confined spaces.

Hydrogen: Extreme flammability and explosion risk if exposed to sparks, flames, or static discharge.

By operating the System, you voluntarily assume all risks associated with these hazards.

3. User Responsibility

The operator is solely responsible for:

- Ensuring proper training in the safe handling of compressed gases.
- Following all local, regional, and national regulations governing gas use.
- Using appropriate personal protective equipment (PPE).
- Operating only in well-ventilated outdoor areas away from ignition sources.

4. Release of Liability

The manufacturer, distributor, and any associated parties shall not be liable for: personal injury or death, property damage, or environmental damage

Resulting from the misuse, improper maintenance, or unauthorized modification of the System.

5. Indemnification

You agree to indemnify and hold harmless the manufacturer, distributor, and their agents from any claims, damages, or expenses (including legal fees) arising from your use or misuse of the System.

6. No Warranty of Safety

While the System is engineered for safe operation when used according to instructions, no guarantee is made against accidents. Safety depends entirely on the operator's adherence to all safety protocols.

Connect Filler Hose to the Tank Securely



Attach the weather balloon to the filler unit using one ziptie positioned in the rib of the unit.



Optional: Loosely position a ziptie above the filler unit on the neck of the balloon.

Connect the filler unit to the hose and secure the bottom of the assembly to a heavy/secure point or ballast.



Optional: Attach the measurement unit below the unit

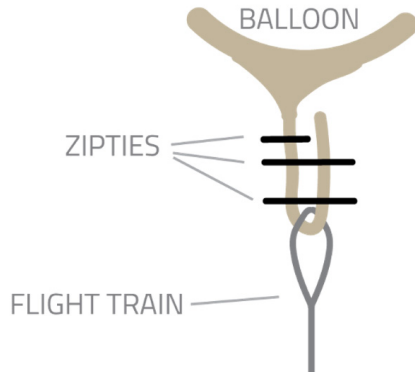


Begin filling the balloon slowly.

If frost accumulates on the filler unit connections, cease filling immediately until frost has dissipated.

Upon completion of filling to desired fill level, tie off the balloon using a zip tie positioned above the filling manifold.

Do not retain the filling manifold on the bottom of the balloon during flight



Remove the balloon from the filler and attach to the flight train with the configuration as follows.

Optionally, use additional zip-ties and wrap with tape to ensure a robust connection.

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Warranty Information

12 months coverage from date of purchase against manufacturing defects. Exclusions of damage from misuse, modification, or accidents. Contact the manufacturer with proof of purchase and photos of the defect

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