

Draeger LDV Plus

Draeger LDV Plus Lung Demand Valve Instruction Manual

Model: LDV Plus

1. INTRODUCTION

This instruction manual provides essential information for the safe and effective use, setup, operation, and maintenance of the Draeger LDV Plus Lung Demand Valve. The LDV Plus is a high-performance, lightweight balance piston lung demand valve designed to deliver a consistent and ample air supply for Self-Contained Breathing Apparatus (SCBA) systems. It is intended for use by trained professionals in environments requiring respiratory protection.

2. PRODUCT FEATURES

- **High Air Delivery:** Delivers in excess of 550 liters/minute of air, ensuring sufficient supply even under strenuous working conditions.
- **Single Directional Airflow:** Designed with a single directional airflow system to prevent cross-contamination when connected to compatible Draeger face masks, such as the Panorama Nova.
- **Positive Pressure System:** Activates on the first breath, maintaining a positive pressure within the mask to prevent inward leakage of contaminants.
- **Ergonomic Design:** Allows for easy connection and disconnection from the mask, even when wearing gloves.
- **Donning Lever:** Features a donning lever that places the LDV in a stand-by mode for quick activation when needed.



This image displays the Draeger LDV Plus Lung Demand Valve, a critical component of a Self-Contained Breathing Apparatus (SCBA). It features a black main body with a red activation button and a flexible black hose connecting to the air supply.

3. SAFETY INFORMATION

The Draeger LDV Plus is a life-support device. Improper use or maintenance can result in serious injury or death. Always adhere to the following safety guidelines:

- Only use this device if you have received proper training in SCBA operation and maintenance.
- Always perform pre-use checks to ensure the valve and associated SCBA components are in good working order.
- Inspect for any signs of damage, wear, or contamination before each use. Do not use if damaged.
- Ensure a secure and airtight connection between the LDV Plus and the face mask, and between the LDV Plus and the SCBA air supply.
- Never attempt to modify or repair the device yourself. Refer all servicing to authorized Draeger personnel.
- Follow all local, national, and international safety regulations pertaining to SCBA use.

4. SETUP AND INSTALLATION

1. **Inspect Components:** Before connection, visually inspect the LDV Plus, the face mask, and the SCBA air supply hose for any damage, dirt, or obstructions.
2. **Connect to Face Mask:** Align the LDV Plus connector with the corresponding port on the Draeger Panorama Nova face mask (or other compatible Draeger mask). Push firmly until a secure, audible click is heard, indicating a proper seal.
3. **Connect to SCBA Air Supply:** Attach the hose from the LDV Plus to the SCBA air supply connection point. Ensure this connection is also secure and free of leaks.
4. **Pre-Use Check:** Don the face mask and perform a negative pressure test to confirm the mask seal. Then, open the SCBA cylinder valve and listen for air flow. The LDV Plus should activate upon first breath, maintaining positive pressure.

5. OPERATION

1. **Donning Lever (Stand-by Mode):** The LDV Plus features a donning lever. When engaged, this lever places the valve in a stand-by mode, preventing air flow until activated. This allows for quick donning of the mask before entering a hazardous atmosphere.

2. **Activation:** Once the mask is donned and sealed, take a deep breath. The positive pressure system of the LDV Plus will activate, providing a continuous supply of air.
3. **Breathing:** Breathe normally. The LDV Plus automatically adjusts air delivery based on your breathing demands, ensuring optimal performance.
4. **Disconnection:** To disconnect, press the release button or lever on the LDV Plus connector while simultaneously pulling it away from the face mask. Disconnect the air supply hose from the SCBA.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and reliable operation of your Draeger LDV Plus.

- **Cleaning:** After each use, clean the exterior of the LDV Plus with a mild disinfectant solution and a soft cloth. Rinse thoroughly with clean water and allow to air dry completely in a clean, dust-free environment.
- **Inspection:** Periodically inspect all components for signs of wear, cracks, tears, or other damage. Pay close attention to seals, O-rings, and hose connections.
- **Storage:** Store the LDV Plus in a clean, dry, and temperature-controlled environment, away from direct sunlight, chemicals, and extreme temperatures.
- **Professional Servicing:** The LDV Plus requires periodic professional servicing and calibration by authorized Draeger service technicians. Refer to your SCBA system's service schedule for specific intervals.

7. TROUBLESHOOTING

If you encounter issues with your Draeger LDV Plus, consider the following basic troubleshooting steps:

Problem	Possible Cause	Solution
No air flow or restricted air flow	SCBA cylinder valve closed; hose kinked; donning lever engaged; internal blockage.	Open cylinder valve; straighten hose; disengage donning lever; if problem persists, remove from service and contact Draeger service.
Air leakage around mask seal	Improper mask fit; damaged mask seal; foreign object under mask.	Adjust mask fit; inspect mask seal for damage and replace if necessary; clear any obstructions.
LDV does not activate	Donning lever engaged; insufficient breath to activate.	Ensure donning lever is disengaged; take a deeper initial breath. If problem persists, remove from service.

For any issues not resolved by these steps, immediately remove the equipment from service and contact authorized Draeger service personnel.

8. SPECIFICATIONS

- **Manufacturer:** Draeger
- **Model Number:** LDV Plus
- **Air Delivery Capacity:** Exceeds 550 liters/minute
- **System Type:** Positive Pressure, Single Directional Airflow

- **Compatibility:** Standard equipment on Draeger ProAir Evolution, Draeger AirBoss PSS 97, Draeger AirBoss Evolution Plus, and Draeger AirBoss PSS 100 Plus SCBA systems.



Left: A close-up of the product packaging label for the Draeger LDV Plus, confirming its identity. Right: The brown cardboard packaging box for the Draeger LDV Plus Lung Demand Valve.

9. WARRANTY AND SUPPORT

For warranty information, technical support, or to locate an authorized service center, please contact Draeger directly through their official website or customer service channels. Keep your purchase records and model number readily available when seeking support.

Draeger Contact Information: Please refer to the official Draeger website for the most current contact details for your region.