



Nitronox Scavenger Plus Quick Start Guide

1. Pre-Check

Note: To perform these tests, gas supply cylinders or gas supply shutoff valves are required in order to isolate the gas supply from the device. Attempting to perform these tests with central pipeline supplied gas without a local shut off mechanism is not recommended.

 **WARNING:** Proper inspection and maintenance of this device is essential to prevent gas leaks. All hoses, fittings, and connections should be inspected regularly, and all leaks should be repaired immediately.

 **WARNING:** If precheck test cannot be executed successfully, do not use this device and contact distributor.

Under-Pressure Valve Open Test

1	Ensure the vacuum is turned on
2	Adjust to maximum vacuum (turning the flow control knob counterclockwise, recommended setting between 3 - 8 inHg)
3	Create a seal by placing your hand over the inlet (patient) port
4	If you feel vacuum (suction on your hand and/or gauge changes), contact your authorized distributor for service and troubleshooting


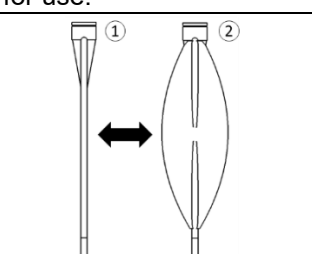
Over-Pressure Valve Open Test

1	Ensure the vacuum is turned off (turning the flow control knob clockwise until tight or shut off vacuum source)
2	Using the breathing circuit, exhale into the Nitronox Scavenger Plus device until the reservoir bag is fully inflated
3	Continue to exhale into the breathing circuit
4	If you feel resistance to exhalation and no flow exiting through the over-pressure valve, contact your authorized distributor for service and troubleshooting


Leak Test

1	Ensure the vacuum is turned off (turning the flow control knob clockwise until tight or shut off vacuum source)
2	Using the breathing circuit, exhale into the reservoir bag until full
3	Monitor the time it takes for the reservoir bag to completely deflate
4	If the reservoir bag completely deflates within 30 seconds, contact your authorized distributor for service and troubleshooting

2. Operating Instructions

1	Before initiating administration of analgesic gas, slowly turn the flow control knob (1) on Nitronox Scavenger Plus counterclockwise until the pressure displayed on the vacuum gauge (2) is within the green band (-3 to -8 inHg).	
2	Begin administering analgesic gas in accordance with the mixing device's instructions for use.	
3	Once the procedure begins, the reservoir bag may slightly inflate upon patient exhalation. Monitor the reservoir bag to ensure the reservoir bag goes from deflated (1) to slightly inflated (2) when the patient exhales, then deflates again before the next exhalation. The pressure displayed on the Nitronox Scavenger Plus should be maintained at the lowest setting that allows complete deflation of the bag between patient breaths. If the reservoir bag begins to accumulate gas, increase the vacuum flow by adjusting the flow control knob.	

Note: If the reservoir bag continues to fill even after completely opening the flow control knob, check that the vacuum supply is ON, there is an adequate vacuum source pressure (10 to 21 inHg), the device is set to the correct vacuum pressure (3 to 8 inHg), the vacuum hose is properly connected, and there are no kinks in the vacuum hose. If gas continues to accumulate, contact your authorized representative for troubleshooting.

 **WARNING:** Operation of the device outside of the green band may not provide adequate scavenging. Operation under these conditions requires monitoring of the reservoir bag. If the reservoir bag does not deflate after exhalation, and the vacuum gauge is below the green band, use of N₂O should be discontinued.

3. Cleaning

The Nitronox Plus must be cleaned between each use in order to prevent the spread of infections. Cleaning of the device has been validated with Super Sani-Cloth™ Germicidal wipes.

WARNING: The following warning applies to the device and any device's components and accessories:



- Do not spray directly with disinfecting chemicals.
- Do not immerse in water, sanitizer, cleaning solution, or any other liquid.
- Do not sanitize or wipe the inside of the fittings, gas supply hoses, or connection ports.
- Always ensure the device and device's components and accessories are completely dry before use.

1	Disconnect and dispose of the single use breathing circuit and single use mask/mouthpiece (if attached). The reservoir bag and vacuum hosing may be disconnected and wiped down.
2	Using a Super Sani-Cloth™ Germicidal wipe, thoroughly wipe down the outer case, front panel, and back of the device until all visible dirt and soil is removed. Take extra care to wipe the outside of the connection port area and vacuum control knob area as these are the most handled areas of the device. The under and over pressure valve areas should not be exposed to the cleaners or wiped to prevent moisture from entering the device. A soft bristled brush may be used to loosen any soil that is difficult to remove. Avoid wiping and applying cleaner to the inside of the over pressure valve and under pressure valve.
3	Perform the pre-use checks as specified in Section 1.

4. Safety Information



WARNING: This product can expose you to chemicals, including lead and formaldehyde, which are known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



WARNING: Do not use this device for the administration of general anesthesia or as part of, or in conjunction with, a general anesthesia administration system.



WARNING: The Nitronox Scavenger Plus is not intended to be used during an MR exam and has not been evaluated for safety and compatibility in the MR environment. The safety of the Nitronox Scavenger Plus in the MR environment is unknown, but due to the presence of materials in the device that may be ferromagnetic, the Nitronox Scavenger Plus should be considered "MR Unsafe" and should be kept outside of any MRI scanner rooms.



WARNING: Workers exposed to excessive N₂O may suffer harmful effects. The healthcare professional is responsible for employing proper techniques, such as scavenging, room ventilation, system maintenance, and patient compliance to reduce exposure. (ACGIH recommends a Threshold Limit Value of 50 parts per million over an 8-hour time-weighted average).



WARNING: Do not change the connection fitting type or diameter of the supply hoses. The Diameter Indexed Safety System (DISS) is designed to prevent misconnection of N₂O and O₂ supply lines.



WARNING: Do not modify this equipment without authorization of the manufacturer.



WARNING: Do not use or replace any components or accessories, except those specified in these instructions for use and installation guide.

5. Representation

 	Legal Manufacturer	Parker Hannifin Corporation Precision Fluidics Division 245 Township Line Road Hatfield, PA 19440 USA Office: (215) 723-4000
	European Communities Authorized Representative	EMERGO Europe Westervoortsedijk 60 6827 AT Arnhem, The Netherlands Tel: +31 70 345 8570
	Conformité Européenne (CE) Mark	Compliance with conformity assessment on quality management system and technical documentation per Regulations (EU) 2017/745 for Medical Device, Annex IX Chapters I & III
	Switzerland Authorized Representative	Medenvoy Gotthardstrasse 28 6302 Zug Switzerland +41 41 562 01 42



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Refer to FM-1429 for complete instructions and safety information.

