



## QUICK START GUIDE

FOR

# PRO TRIMIX HELIUM/OXYGEN MIXTURE ANALYZER



P/N He/O2  
Rev 1



**DANGER**



This instrument is designed to monitor the helium and oxygen concentrations in a gas mixing process. When processing gas mixtures intended for breathing, the instrument must be calibrated and functioning properly. Suffocation or other fatal respiratory complications can result from improperly calibrated or malfunctioning equipment.

Oxygen accelerates combustion. Do not use this instrument around open flames and combustible gases, liquids or solids.

Only authorized personnel should conduct maintenance and/or servicing. Before conducting any maintenance or servicing, consult with authorized supervisor/manager.

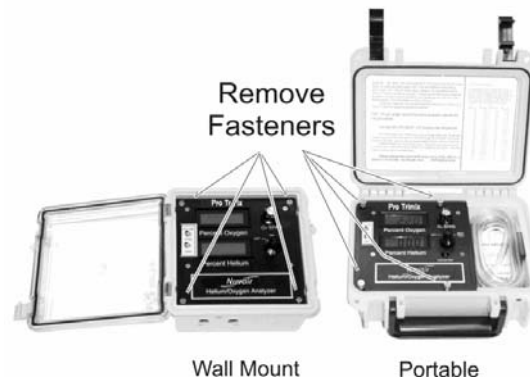
# Quick Start Guide for Pro Trimix Helium/Oxygen Mixture Analyzer

Thank you for purchasing Nuvair's PRO TRIMIX Helium/Oxygen Analyzer. This Quick Start Guide describes the steps to successfully install, calibrate and use your new instrument. This guide covers both the wall-mount and portable units with and without oxygen analysis. For full details on the use and maintenance of your new instrument please refer the Users Manual.

## Components

The PRO TRIMIX Analyzer includes:

- Analyzer
- 6 VDC Power Adapter (optional for portable model)
- (Optional) R-33D1 high output micro-fuel cell oxygen sensor
- 3/16 vinyl sample inlet tubing (portable model only)
- Batteries (portable model only)
- Sample adapters
- Instruction Manual



## Startup

Getting your unit operational:

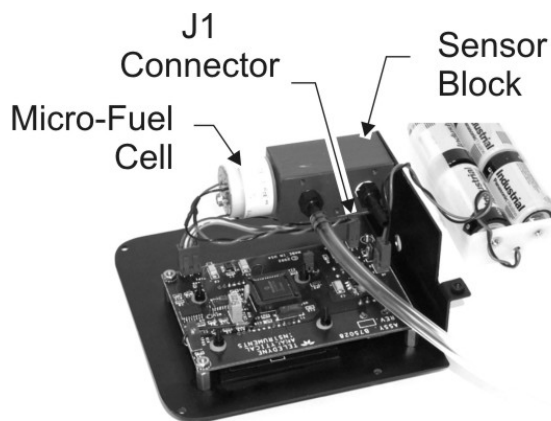
1. Install the (optional) R-33D1 Micro-Fuel Cell sensor
2. Install the batteries (portable model) or AC power adapter on the wall mount unit.
3. Calibrate the Instrument
4. Connect to gas sample

## Installing the Sensor

1. Turn off power if batteries are installed. Remove the fasteners that secure the front panel.

**Caution:** The electronic components used in this device are sensitive to static discharge. Before removing the front panel ground yourself by touching a metal object such as facet.

- **(Portable unit)** Remove front panel.
  - **(Wall mount unit)** Rotate the front panel down 90 degrees to expose connector J1.
2. Remove the sensor from its packaging and check that the o-ring is properly seated.
  3. Install the Micro Fuel Cell oxygen sensor by screwing it into the sensor block clockwise as shown.
  4. Connect the sensor to the mating connector J1 as shown.
  5. Replace the front panel and secure with fasteners.



## Battery installation

Using a screwdriver loosen the two captive screws holding the battery compartment door. Install the batteries observing proper polarity. Re-install the battery compartment door and check the batteries by moving the ON-OFF switch to the BATT test position. The Oxygen display should show a value of about 120. Readings below 100 indicates the batteries need to be replaced.

## 6 VDC Power adapter

On the portable model the AC Power Input Port is adjacent to the ON/OFF-BATT switch. On the wall mount unit the input connection is on the right side the enclosure. See adjacent photo.

*Note:* Use only the correct power adapter for your location.

## Gas Connections

**Portable model:** The portable model is supplied with a 3/16" vinyl hose connected to the inlet port and adapters for taking a gas sample from the inflator hose (See Figure 1). An optional flow restrictor is available for sampling gas directly from cylinders. (See Figure 2)

**Wall Mount:** Do to the complexity of the wall mount sampling system please refer to the user's manual for installation details.



## Calibration

*Note:* The sample gas must be flowing to accurately calibrate the instrument

### Oxygen sensor

1. Using a source of dry air adjust the flow until you can just detected the gas flow with your finger. Connect gas line to the analyzer input port.
2. When the oxygen display reading stabilizes (approximately 1 minute) adjust the oxygen display to read 20.9% using the O2 Span control on the front panel. Note: The highest degree of accuracy is achieved by using 100% oxygen and adjusting the reading to 100.

### Helium sensor

The Helium sensor is supplied fully calibrated and should not require adjustment for approximately 30 days. For calibration information please refer to the instruction manual.

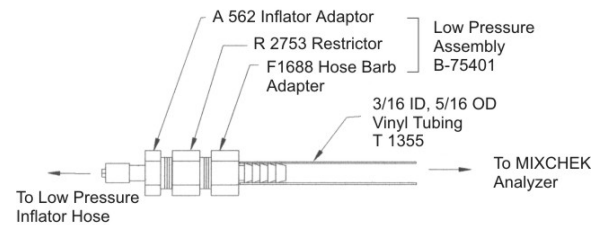


Figure 1

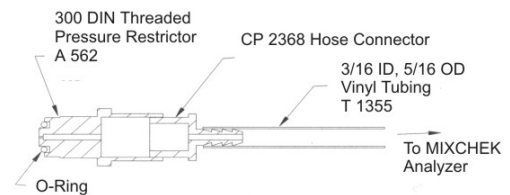
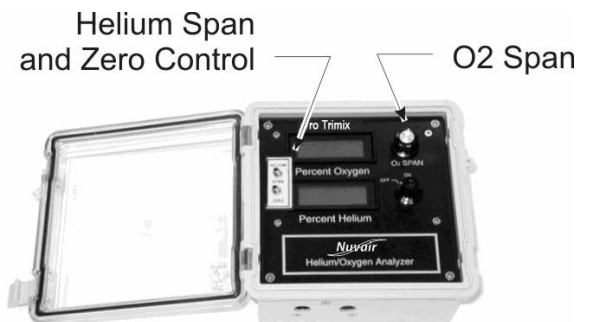


Figure 2

## Operation

To operate the **PRO TRIMIX**

1. Turn the power on.
2. Attach the sample line using the supplied adapters and allow the gas to flow into the instrument at 1-2 LPM. If the readings on the LCD display appear wrong shut the gas off and observe readings. If they drop within a few seconds the gas flow is too high. Reduce flow or use the cylinder valve to turn the gas on and off until a stable reading is achieved.





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