

Pertinent Dealer Information

The EDS O2D1 and O2D2 units are the first in a series of physiologically adaptive systems to help mitigate 'fringe' inadequacy with differing breathing profiles and habits that some people may have while being exposed to higher altitudes. Various important physiological information is gleaned from the BARO sensor and breathing sensor to build a real-time on-going set of data during use to help allow the EDS unit to adapt to individual breathing patterns and profiles to ensure that a wider cross-section of the populous get the oxygen they need during the conditions they need it the most. This is very similar to the engine monitoring computer that is ubiquitous in modern automobiles allowing for best fuel economy and emission curtailments.

It should also be mentioned that if the firmware in the O2D2 and O2D1 units does not acquire a minimum set of physiological parameters, it would revert to the original delivery scheduling as used in previous EDS units.

<< Confidential Information >>

From information reported from all over the world and from on-going testing, we have found a few issues that needed addressed. From this, we will have a new firmware release for the O2D2 and O2D1 just after the turn of the year. This release addresses operational and functional issues with the product line.

Issues and fixes such as:

- 1) Unexplained random Flow-Fault alarms while in use.
- 2) Not producing Flow-Fault alarms in some conditions where the pulse is short and the inlet tube is not connected.
- 3) The apnea alert now only comes on once the current 'D' threshold is detected if the user is not connected (restored to the way it was with previous EDS units)
- 4) Over-compensation for some breathing profiles (mitigates reported over-consumption of oxygen for some people)
- 5) Inability to detect breathing of some people at higher altitudes (new altitude compensation for sensor profile)
- 6) Fixed the problem where the unit would sometimes, at higher altitudes, respond with a pulses of oxygen over and over again without anyone breathing.
- 7) Units now properly compensate for breathing thresholds and slope discrimination as a function of altitude.
- 8) Units now have the respirometer calibrated to where the breathing response complements (on an 8-breath rolling average) respiration rates from 20 and up to 40 bpm. Additionally, the units now back compensate for breathing rates past 20 bpm 20 bpm and upto 40 bpm in a more physiologically adaptive method to mitigate hyperventilation's,
- 9) The altimeter and battery monitoring ADC inputs now have a 4-reading 15 second rolling average to help filter out any noise that in the past may have caused the units to momentarily misread these inputs.
- 10) Misc. other refinements and improvements that do not add features other than increased performance and reliability.

In addition to the firmware upgrade, there will be a few hardware upgrades that go beyond what can be done in the field by our trusted dealers.

This is not considered as a product recall campaign, rather an important update/upgrade that should be performed as soon as it is practically possible. This is especially so with cases where you may have unique and unexplained problems with certain customers.

This information has not yet been officially announced on our web-site.

Patrick L. McLaughlin
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