
FAQ - SOLO2™ Concentrator on DC Power

PLEASE READ PRIOR TO PRODUCT USE

Q1. At which settings can the SOLO2 concentrator run when using external DC power?

A. In most vehicles; All pulse settings (1-5) and, Continuous flow settings up to 2 LPM.

**** INVACARE recommends that the operation of SOLO2 be checked in vehicles planned to utilize the product prior to purchase. Vehicle modification may be necessary where vehicle electronics not designed to supply the SOLO2's power requirements. Consult your motor vehicle dealer or auto electrician for further advice.**

Q2. So, on external DC Power, the SOLO2 will not run at continuous flow settings higher than 2 LPM?

A. Correct – the SOLO2 system, as it is currently configured, can never be run higher than 2 LPM when running on external DC power. Even if it has been set a higher flow rate on AC or battery power, the unit will automatically drop to 2 LPM when external DC power input is sensed.

Q3. Why the continuous flow restriction on DC Power?

A. In short, because of the limited DC power source in an automobile (i.e. car battery, alternator and charging systems), a limit has been put in place to protect both the concentrator and/or the vehicle from overloads. To generate more than 2 LPM of oxygen flow, the SOLO2 compressor will typically demand more power than the automobile accessory outlet fuses can allow. Without restricting the flow to 2 LPM, the accessory outlet fuse would likely open and discontinue power to the accessory outlet until the fuse is replaced. In some cases, the failure of certain accessory fuses could cause the car to shutdown.

Q4. In the answer to question #1, it was stated that “in most vehicles” the SOLO2 can be used up to 2 LPM on DC power. What does this mean?

A. 2 LPM is upper limit of continuous flow range on the SOLO2 concentrator using external DC power. However, if a vehicle has shortcomings or restrictions in the supply of power it can provide, the SOLO2 concentrator may not run at 2 LPM in this vehicle.

Q5. Can more information be provided on this point?

A. An auto battery system is limited in terms of how much power it can provide. The total power available is dependant upon the strength and age of the battery and the performance of the alternator and battery charging systems. Also, certain vehicles now restrict the amount of power that can be drawn through DC accessory outlets – if the outlet restricts the amount of power available to the SOLO2 concentrator, the unit may not be able to run at 2 LPM. The power available could require the continuous flow setting be reduced to 1.5 or 1.0 liters.

Q6. How would one determine if an automobile has difficulty powering the SOLO2 when running on continuous flow?

A. Run the SOLO2 at 1.5 LPM or 1.0 LPM – if the unit runs without issue (no warning or error message) at these lower settings, but the unit alarms when running at 2.0 LPM, chances are good that the automobile has some type of power limitation (accessory outlet limit, battery degradation) that will keep the SOLO2 concentrator from running without issue at 2.0 LPM.

Q7. Isn't there a list of autos that have power port restrictions or other issues that could limit the ability of the SOLO2 concentrator to run on continuous flow that could be developed?



A. Unfortunately, with the multitude of manufacturers, models and varying specifications in the different vehicles in use around the world, it is impossible to develop a comprehensive list of vehicles where power restrictions could limit the continuous flow capability of the SOLO2 concentrator. Also, as stated above, in some vehicles where the unit might run on 2 LPM when a car is new, the SOLO2 might not run at 2 LPM if the car battery is worn down, or the alternator and charging systems are not at optimal levels, etc. These possibilities make the development of a list of vehicles that can run the SOLO2 at 2 LPM without issue impractical.



Q8. Is there any tip that can be offered to providers that might help to alleviate this problem?

A. One action could help to correct the problem: have the user remove the battery pack when using the SOLO2 on external DC power. Vehicle battery power being diverted to charging the concentrator battery could, instead, provide additional power for running the concentrator itself and possibly boost the achievable flow rate up to the 2 LPM maximum. Another suggestion would be to review their automobile Owner's Manual and accessory outlets to see if there are some with higher power ratings compared to others.

**** PLEASE NOTE – Always remember to properly restrain the SOLO2 before using in a moving vehicle**

Display indicators in response to Low DC Power being detected by the SOLO2 software. Further details are available in the User Manual provided.

LCD DISPLAY:	INDICATORS:
 WARNING: EXT PWR LOW  See Manual	Triple audible beep every 10 sec YELLOW indicator Flashing .
DESCRIPTION:	SOLUTIONS:
External DC Power is lower than optimal. Excessive current draw could be present. Warning will continue every 3 minutes as long as condition exists.	1. Make sure that car (boat or motor home, etc.) is running. 2. Make sure DC Power Cable is firmly connected at both ends. 3. Switch to external AC or battery power.
ACKNOWLEDGEMENT REQUIRED:	
Press Return / Highlight button. Display will either show additional warnings / alarms or revert to normal operating screens	

LCD DISPLAY:	INDICATORS:
 ALARM: [02] EXT PWR TOO LOW Find New Power 	Continuous audible beep every half second. RED indicator is On . GREEN indicator is Off .
DESCRIPTION:	SOLUTIONS:
External DC Power is too low to allow continued operation. Excessive current draw present.	1. Make sure that car (boat or motor home, etc.) is running. 2. Make sure DC Power Cable is firmly connected at both ends. 3. Switch to external AC or battery power. 4. Change to another source of oxygen if no other power source is available.
ACKNOWLEDGEMENT REQUIRED:	
Press and hold the On/Off button to power down the unit and restart.	

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