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Med Tips

May 2012

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NEW!!
Patient Spotlight

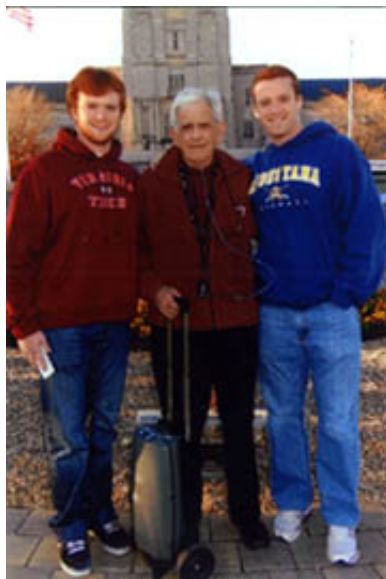
John's Eclipse 3 Story-
In his own words

PDF Version

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I am on oxygen 24/7 and presumably will be for the rest of my life. Until I acquired the Eclipse 3, I was quite limited in how far I could go and for how long.....Because we have several grandkids involved in sports and other activities here and in other states. and we wish to attend

as many of their events as possible, it was necessary for me to find something that would meet my oxygen needs in a variety of situations. On the advice of Bob McCoy and Ryan Diesem, I acquired the Eclipse 3.

The Eclipse 3 is permitted on airplanes, provided the patient furnishes to OxygenToGo, a completed physicians statement form for the particular airline(s) being used at least 48 hours before the outbound flight. Forms are available at OxygenToGo.com. The Eclipse 3 provides oxygen support for several hours, depending on the setting (continuous or pulse) and oxygen flow selected.The first time I used the Eclipse 3 was last November on a trip to Blacksburg, VA, to attend my grandson's final home football game for Virginia Tech, where he was the team's long snapper for 4 years. I was pleasantly surprised at the airport to be directed to a "special services" desk, where I was checked in without waiting in line and was then directed through a special TSA line to some blue seats, where I was told to sit and wait for a golf cart to take me and my wife to our gate. All very painless and considerate..... My next airplane trip was to watch Virginia Tech's game in the 2012 Sugar Bowl in New Orleans last January.

Since then, I have traveled by car to Augustana College in Sioux Falls, SD, to attend another grandson's baseball games; to the University of Northern Iowa in Cedar Falls/Waterloo, IA, for another grandson's football recruiting visit (he has accepted a full ride football scholarship); to various cities in the Upper Midwest for other grandkids' indoor soccer and lacrosse games; and to our cabin in northern Minnesota.

In a nutshell, with the Eclipse 3 I need not be tied down to my house. I am able to do all of the same things and go to all of the same places as before. Without it, these trips would not have been possible.

John





Thank you John for sharing your story!

***If you know of a patient who would like to be in one of our spotlights, please reply to this email!*

Clinical Applications for the Eclipse 3

As John mentioned in his story above, the Eclipse 3 is FAA approved and allows patients to travel and participate in the same activities they love to do. autoSAT® allows Your patient the Peace of Mind they deserve along the LTOT Continuum.

One great feature from the Eclipse 3 that keeps our patients moving is our autoSAT® technology. autoSAT® will maintain a consistent pulse volume with accurate FiO₂ dosing for every breath as your patient's respiratory rate increases with activity. This is very critical in preventing patient desaturation during the LTOT Continuum.

Think of autoSAT® as being similar to the cruise control in your car. When you hit a hill using cruise control, your vehicle automatically adjusts the energy output needed to maintain the consistent speed you selected. Along these same lines, autoSAT® will servo-control to your patient's respiratory rate in order to deliver a consistent FiO₂, which is critical in preventing desaturations.

This is critical since Oxygen is classified as a drug by the FDA. An effective LTOT delivery system must deliver consistent FiO₂ and accurate dosing for effective oxygenation. This is often where many other popular POC's fall behind, going slower and slower up the hill, leaving your patient deficient in O₂ when they need it most.

For more information about the clinical advantages of the Eclipse 3, or about autoSAT® and how it works, please contact Technical Service or your local sales representative.

PRODUCT INFORMATION

LOX Portable NER Rates

Liquid oxygen is continuously evaporating into a gas at a slow rate inside of all CAIRE portable units. The rate of generation of this gas (called head gas) is the Normal Evaporation Rate (NER) of the portable. NER is calculated in weight of LOX lost per day. When the unit is in the off position, this gas will build up pressure inside of the tank. When the pressure reaches the setting of the relief valve, the head gas is released through the relief valve into the atmosphere. The recommended procedure for testing the NER of a CAIRE portable unit is listed below.

- 1) Ensure the unit has been thoroughly leak tested and that its relief valves are operating to specification. Refer to the current technical manual for your unit for these appropriate procedures.
- 2) Fill the CAIRE portable from a properly saturated liquid oxygen reservoir.
- 3) Allow the unit to sit undisturbed for 1-2 hours after filling, with its flow control valve in the off position. This time will allow the unit to stabilize at primary relief valve pressure.
- 4) Record the initial weight (W1) of the unit and the time (T1) that this weight is measured.
- 5) Allow the unit to sit undisturbed for a minimum of 5-6 hours with its flow control valve in the off position. (Larger units like the C1000T and Stroller can be left undisturbed for 15-18 hours).
- 6) Record the final weight (W2) of the unit and the time (T2) that this weight was measured.
- 7) Calculate the NER in unit of weight per day using the formula below. The result will be an NER in either kg/day or lbs/day.

$$\text{NER} = \{24 \times (W1 - W2)\} / (T2 - T1)$$

W1 = Initial Weight in kg or lbs

W2 = Second Weight in kg or lbs

T2 - T1 = Time elapsed between weight measurements in hours

8) Refer to the current technical manual for your portable unit and verify that the NER calculated is within the acceptable range.

Companion Portable Warming Coil Modification

Effective June 2012, the design of the warming coils on C1000T portable units will be modified. Please [click here](#) to see the technical bulletin outlining this change.

Integra Replacement Circuit Boards

Replacement circuit boards for Integra concentrators are commonly requested part numbers. Use the table below as a guideline for ordering replacement circuit boards for all models of the Integra concentrator.

NOTE: Integra models with digital flow display screens are designated as the Integra E-Z. Models with the floating ball flow adjustment are designated as analog.

Integra Model	Electrical Specification	Oxygen Monitoring	Circuit Board Part Number
Analog	110V/60Hz	No	3497-SEQ
Analog	110V/60Hz	Yes	3496-SEQ
Analog	220V/50Hz	Yes	2735-21-SEQ
E-Z, 5LPM	220V/50Hz	No	SP3440-3-SEQ
E-Z, 5LPM	220V/50Hz	Yes	SP3440-2-SEQ
E-Z, 7LPM	110V/60Hz	No	SP3440-9-SEQ
E-Z, 7LPM	110V/60Hz	Yes	SP3440-8-SEQ
E-Z, 10LPM	110V/60Hz	No	SP3440-5-SEQ
E-Z			SP3440-4-

10LPM	110V/60Hz	Yes	SEQ
E-Z, 10LPM	220V/50Hz	No	SP3440-7- SEQ
E-Z, 10LPM	220V/50Hz	Yes	SP3440-6- SEQ

Eclipse 1 Power Supply Adaptor

The Eclipse 1 (Model 1000) featured a 2-pin connection for external power supplies that required the power supply to twist and lock in place to attach to the side of the concentrator.

The AC and DC power supplies that have this style connection are no longer available for purchase. The only power supplies currently available are the ones designated for the Eclipse 2 & 3 (Model 10000A and 1000B). These have a 3-pin connection and cannot twist into place.

Chart SeQual offers a power supply adaptor that will allow an Eclipse 2 & 3 power supply to be used on an Eclipse 1. This adaptor can be ordered using part number #5210-2-SEQ.

Eclipse 1 Power Supply Adaptor (#5210-2-SEQ)



End that connects to the current Eclipse AC or DC power supply



End that connects to the side of the Eclipse 1

HELPFUL HINTS / FAQs

HELiOS Contents Indicator Reading Empty

Q: I just filled a HELiOS reservoir up and the gauge reads empty. I tried replacing the gauge and the meter still reads empty. What could be the problem and how can this be corrected?

A: A common cause is an obstruction in the pressure sensing line. This is the red line that runs from the bottom of the contents indicator to the inside of the tank. This blockage is often ice that has formed from moisture infiltration into the reservoir. For information on how to prevent moisture infiltration, see the January 2012 edition of the Med Tips.

The recommended procedure to clear this blockage is to purge the reservoir and the contents indicator lines of moisture. The procedure to do this is given below.

- 1) Ensure the reservoir is empty, warm, and free of internal pressure according to the procedures in the HELiOS Technical Manual.
- 2) Remove the upper shroud of the reservoir.
- 3) Use the vent wrench to open the vent valve on the reservoir.
- 4) Connect a pressurizing fixture (B-701731-SV) to the QDV on the reservoir as shown below.





- 5) Attach the pressurizing fixture to a source of gaseous oxygen with a 0-6.9 bar (0-100 psi) regulator.
- 6) Adjust the regulator on the gaseous oxygen source until the gauge on the pressurizing fixture reads approximately 1.0 bar (15 psi).
- 7) With only the vent valve open, allow the reservoir to purge for approximately 45 minutes.
- 8) Disconnect the pressurizing fixture.
- 9) With no pressure in the unit, disconnect both the flexible black (low) and red (high) sensing lines from the bottom of the contents indicator. Using a wire tie, lightly secure the tubes to the vent valve to prevent them from moving around.



- 10) Close the vent valve and reconnect the pressurizing fixture. Adjust the regulator on the gaseous source until the gauge on the pressurizing fixture reads approximately 1.0 bar (15 psi).
- 11) Allow 15 minutes for the gas to flow through and purge the contents indicator lines.
- 12) Disconnect the pressurizing fixture and open the reservoir vent valve.

RESERVOIR VENT VALVE.

13) Reconnect the sensing lines to the bottom of the contents indicator.

Eclipse DC Power Operation Test

Before traveling with the Eclipse using DC power, always test the unit in the patient's vehicle. This will ensure that the car's DC Accessory Outlet will produce enough power to run the Eclipse for an extended period of time. Use the following procedure to test DC operation in a vehicle prior to use:

- 1) Remove the power cartridge (battery) from the Eclipse.
- 2) Start the vehicle.
- 3) Plug the Eclipse into the DC Accessory Outlet. The outlet closest to the vehicle's battery is recommended as this produces the most power.
- 4) Ensure that the green status LED is illuminated on the DC power supply. This ensures that it is receiving power from the accessory outlet.



- 5) Set the Eclipse facing outward so that the air intake filter is not obstructed and there is sufficient air flow around the device.
- 6) Set the Eclipse to 0.5 LPM continuous flow and allow it to run for 1-2 minutes at this flow rate.
- 7) Increase the continuous liter flow incrementally, testing

each setting as described in Step 4 to ensure that the Eclipse does not alarm or shut off.

Eclipse Will Not Turn On

Q: My Eclipse has a solid red light on top. It will not turn on or turn off. How do I get it to turn on again?

A: If the Eclipse has turned off in this manner, the first thing to do is reset the device. To reset the Eclipse, disconnect the power cartridge (battery) from the back of the Eclipse and disconnect any external power cord from the side of the Eclipse. When this is done, the red light will turn off and the screen will go blank. Wait approximately 20 seconds with no power connected to the Eclipse.

Next, check the connections on the external power supply to be sure that they are intact and secure. Reconnect the external power supply to the side of the Eclipse and attempt to power the Eclipse on again by holding the power button down for 2-3 seconds.

If the machine does power back on, allow it to complete its warm-up period until only the green normal operation light is illuminated and then re-insert the power cartridge (battery).

If the Eclipse does not turn back on, contact Technical Support as further troubleshooting may be necessary.

ACCESSORIES

LOX Test Pressure Gauge Assembly

CAIRE offers a test pressure gauge assembly for LOX units. It is an essential part for function testing units and can be used to check the output pressure of both reservoirs and portables. It is also used to monitor pressure during filling for reservoirs that do not have a built-in internal pressure gauge.

Order the test pressure gauge assembly using part number

Order the test pressure gauge assembly using part number #B-701732-00. It contains a 0-6.9 bar (0-100 psi) pressure gauge connected to oxygen tubing and a DISS adaptor.



Eclipse Travel Accessory Kit

A travel accessory kit is available for the Eclipse concentrator. This kit includes an Eclipse travel case, 1 power cartridge (battery), a desktop charger, and a power cord.

The travel case is designated with adjustable velcro compartments to neatly store accessories such as power supplies, power cartridges, or a desktop charger. The case has a rubber handle and will slip over the handle of all Eclipse carts.

Order the Travel Accessory Kit using the part numbers below. The electrical cord supplied will vary based on the country.

Electrical Cord	Travel Accessory
Included	Kit
North American	5093-SEQ
European	20553325
UK	20553322
Swiss	20553323



SERVICE SCHOOLS & TRADESHOWS

Mark Your Calendars for our Upcoming 2012 Service Schools!

USA

Concentrator Technical Training in English

May 7-8

Ball Ground, GA

LOX Technical Training in English

May 9-10

Ball Ground, Georgia

Concentrator Technical Training in English

August 13-14

Ball Ground, GA

LOX Technical Training in English

August 15-16

Ball Ground, Georgia

Concentrator Technical Training in English

November 5-6

Ball Ground, GA

LOX Technical Training in English

November 7-8

Ball Ground, Georgia

To register for 2012 US LOX Training, [download this form](#).

To register for 2012 US Concentrator Training, [download this form](#).

Europe

Concentrator Technical Training in English

May 22 & 23

Wuppertal, Germany

Concentrator Technical Training in English

May 29 & 30

Wokingham, UK

LOX Technical Training in Spanish

June 5 & 6

Fonsorbes, France

Concentrator Technical Training in Spanish

June 7

Fonsorbes, France

Concentrator Technical Training in German

June 13 & 14

Wuppertal, Germany

Concentrator Technical Training in French

June 20 & 21
Fonsorbes, France

LOX Technical Training in German

September 5 & 6
Wuppertal, Germany

LOX Technical Training in English

October 16 & 17
Wokingham, UK

LOX Technical Training in French

October 17 & 18
Fonsorbes, France

LOX Technical Training in Italian

November 14 & 15
Padova, Italy

For more information on the 2012 European trainings, please contact Jim Gibson at jim.gibson@chart-ind.com.

Tradeshows

We'll also be present at the following tradeshows this month, so feel free to stop at our booth! To find out more about any of the following shows, please click on its title and you will be directed to the show site.

[Colorado Society for Respiratory Care](#)

May 2- May 4
Breckenridge, CO

[FOCUS on Respiratory Care & Sleep Medicine](#)

May 10-12
Nashville, TN

[California Society for Pulmonary Rehabilitation](#)

May 16-18
Westin San Francisco Airport, CA

[New England Medical Equipment Dealers Association Conference](#)

May 16-17
Bretton Woods, NH

[Kentucky Medical Equipment Suppliers Conference](#)

May 21-22
Louisville, KY

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