

February 2016 Med Tips

Helpful Hints and FAQs

SeQual® Eclipse™ Case Screw Part Number

Q: What is the part number for replacement screws that secure the Eclipse™ bottom case to the top case?

A: The case screw utilized on the Eclipse™ is PN 6974-312-SEQ. Each back case will require a total of 10 screws.

Frequently Asked Eclipse™ Battery Questions

Q: What type of battery is used in the Eclipse™ concentrator?

A: The Eclipse™ power cartridge contains two lithium ion batteries. Each of the batteries contains 7.92 grams of lithium ion content.

Q: Can the same battery be used in all models of the Eclipse™ (1, 2, 3, & 5)?

A: Yes, the same battery may be used in all models of the Eclipse™. The face-plate of the Eclipse™ 5 battery is a slightly darker color than previous Eclipse™ battery models, but is still compatible.

Q: How long does it take a battery to fully charge when charging from inside of the Eclipse™ on AC power?

A: The Eclipse™ battery can take 3-5 hours to charge under these conditions. The battery will charge while the Eclipse™ is connected to AC power whether the Eclipse™ is on or off.

Q: Is it best to store the battery fully charged or empty?

A: The best way to care for a lithium ion battery is to store it at approximately 40-50%.

Q: What is the estimated life-span of a battery?

A: The battery will maintain 80% of its capacity for 500 full charge and discharge cycles. This is difficult to directly equate to a number of years or months. As a general rule, CAIRE® recommends that all batteries older than 2 years be tested for their capacity prior to being given to a patient.

Q: How can you determine the age of an Eclipse™ battery?

A: A white sticker containing a barcode can be found on the top of the battery. The serial number, or lot number, of the battery is given on this sticker. The first two digits of the lot/serial number represent the year that the battery was manufactured. For example, if the first two digits displayed are "10", then the battery was manufactured in 2010:

Q: When does CAIRE recommend that a battery be taken out of service?

A: The battery should be taken out of service when the battery will no longer maintain 80% of its full capacity. It has been shown that after batteries reach 80% of their capacity the capacity will begin to decrease quickly and unpredictably. Once battery capacities have declined past this 80% level, their performance would not be considered reliable.

AirSep® VisionAire™ Flow Alarm Testing

Problem: When I test my VisionAire™ for the 6-beep (no flow) alarm, I do not get an alarm even though the flow meter ball registers zero.

Solution: Please be sure to operate the VisionAire™ unit for at least 5 minutes prior to any testing. Aside from the startup alarm, alarms in the VisionAire™ concentrators are not active during the first 4 minutes of operation; this is to allow for the unit to balance.

Note: VisionAire™ units manufactured with a main circuit board prior to Rev. R are not programmed with the no flow alarm feature.

Liquid Oxygen Portable Bags and Backpacks

A carrying bag is available for all CAIRE portable liquid oxygen units. Use the table below as a guideline for ordering these accessories:

Portable Unit	Carrying Accessory	Part Number
Stroller®/Sprint™/Hi-Flow Stroller	Back Pack/Shoulder Pack	13214825
Companion® C1000/C1000T	Back Pack/Shoulder Pack	10018138
Helios™ Plus (H300)	Hip Pack	B-701654-00
Helios™ Marathon (H850)	Back Pack	069209
Spirit™ 300	Hip Pack	11843361
Spirit™ 600/1200	Back Pack/Shoulder Pack	13214825

Periodic Inspections for European CAIRE Liquid Oxygen Reservoirs and Portables

The ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road) and regulation EN1251-3 (Cryogenic vessels - Transportable vacuum insulated vessels of not more than 1000 litres) require that periodic inspections are performed on closed cryogenic vessels every 5 and 10 years. All CAIRE Liquid Oxygen Reservoirs and Portables fall under these requirements.

Charts European facilities in UK, Germany and Italy are fully accredited to perform the required inspections and also offer a further TPED accreditation service. Please contact customer service for further information.

This month CAIRE Liquid Oxygen Reservoirs and Portables manufactured in **February 2011** and **February 2006** are due for inspections. The manufacture date of your equipment can be identified on the vessels data plate.

Please contact customer service for further information.

United Kingdom +44 (0) 1189 367060

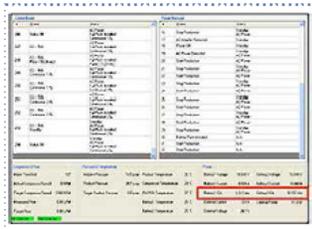
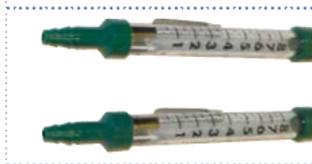
France +33 (0) 561 429 411

Germany +49 (0) 202 739 55420

Italy +39 049 879 9601

Email: customerservice.europe@chartindustries.com

Accessories and Parts

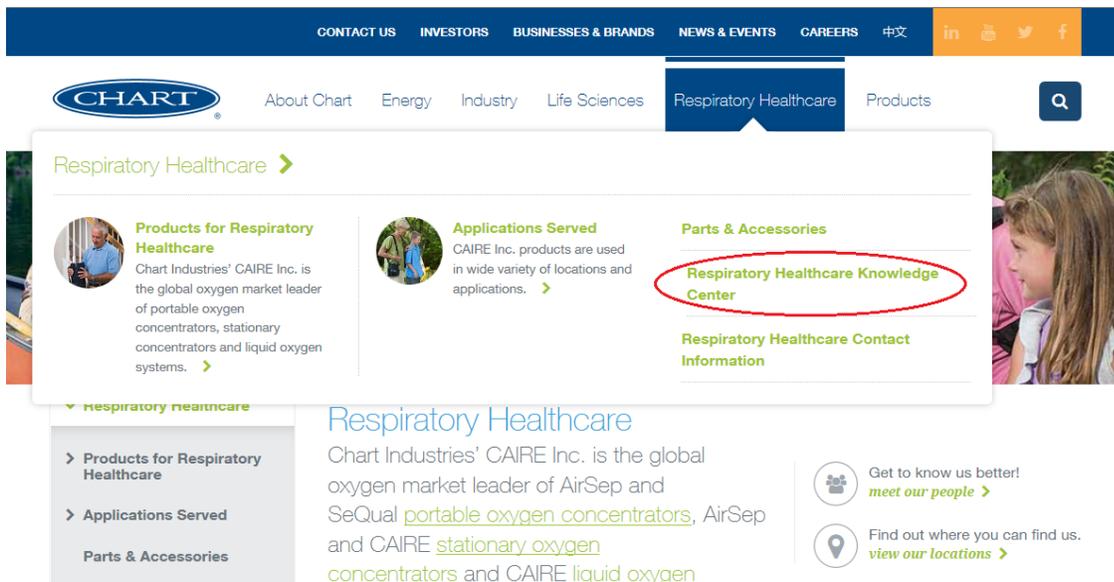
	<p>5535-SEQ</p>	<p>SeQual EDAT: Eclipse Data Acquisition Software. Real-Time diagnostic and quick-check computer program for all models of the SeQual Eclipse. Part number includes software, blue USB key, and necessary cable.</p>
	<p>069209</p>	<p>HELiOS Backpack H850: Designed and sized specifically for the HELiOS Marathon (H850). Equipped with moisture pad to collect condensation. Can also be converted to a hip pack.</p>
	<p>B-701654-00</p>	<p>H300 Hip Pack: Pack for the HELiOS Plus (H300) designed to be worn on the hip.</p>
	<p>11781228</p>	<p>Pulsemeter: Used to test the accuracy of pulse dosing with each breath of HELiOS and Spirit portables.</p>
	<p>10995620</p>	<p>Erie Liter Meter, 6-15 LPM: Used to measure continuous flow from reservoirs and portables between 6-15 LPM.</p>
	<p>97200076</p>	<p>Erie Liter Meter, 0-8 LPM: Used to measure continuous flow from reservoirs and portables between 0-8 LPM.</p>

Product Information

CAIRE Catalogues, Spec Sheets, Parts Lists, and Manuals

You may now access catalogues, spec sheets, parts lists, and manuals in the Respiratory Knowledge Center on the Chart Industries website.

1. Go to www.chartindustries.com
2. Hover the mouse over the Respiratory Healthcare tab at the top of the screen and a drop down menu will appear.
3. Click on the Respiratory Healthcare Knowledge Center link to access documents.



CAIRE EDAT UPDATE (Eclipse™ and eQuinox™ Data Acquisition Tool)

EDAT 4.0.9 has been released. The primary change is that eQuinox™ and Oxywell firmware versions are the latest (3.6) in the “Firmware Upgrade” screen. If you already have EDAT 4.0 or higher installed, you do not have to uninstall it first; it will upgrade it for you. EDAT versions earlier than 4.0 will need to be uninstalled before installing this latest version. The latest version of the EDAT software can be found on our website (www.chartindustries.com) by clicking on the “Respiratory Healthcare” tab and then “CAIRE Downloads”.

EDAT is a PC program that connects to your Eclipse™ or eQuinox™ using a USB Cable. EDAT enables you to check proper operation of your fleet, quickly diagnose and troubleshoot any issues, and optimizes your repair processes to minimize down-time. EDAT (part number 5535-SEQ) is compatible with Windows 10, Windows 8, Windows 7, and Windows Vista.

Connects to the USB drive on a Computer



Connects to the back of the Eclipse™ or eQuinox™



EDAT Features:

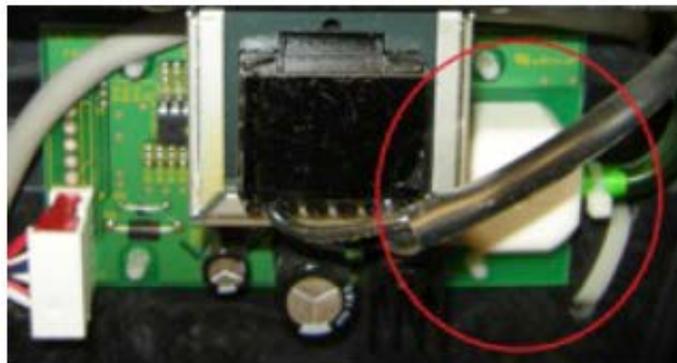
- Perform a Quick Check of Operating Conditions.
- Displays real time O₂ concentration, Flow Rates, Pressures, Temperature, Power Consumption, and Compressor Speeds.
- Displays active alarms for speedy diagnosis.
- All operating conditions displayed on the home screen for instant access.
- Print device reports for record keeping.
- Gives target values for compressor speed, flow, and pressure to verify proper operation of the main internal components.
- Assists with checking that the batteries are charging and calibrated properly.
- Use operating conditions displayed to diagnose faulty components faster than ever and speed up the repair process.
- Software upgrades within the program necessary when replacing circuit boards.
- Place unit in test mode to verify pulse flow function.

EDAT is critical for upkeep of your Eclipse™ and eQuinox™ fleet.

Contact Customer Service to Order Today!

Replacing NewLife® Elite & Intensity O₂ Ceramic Monitoring Boards with Ultrasonic O₂ Boards

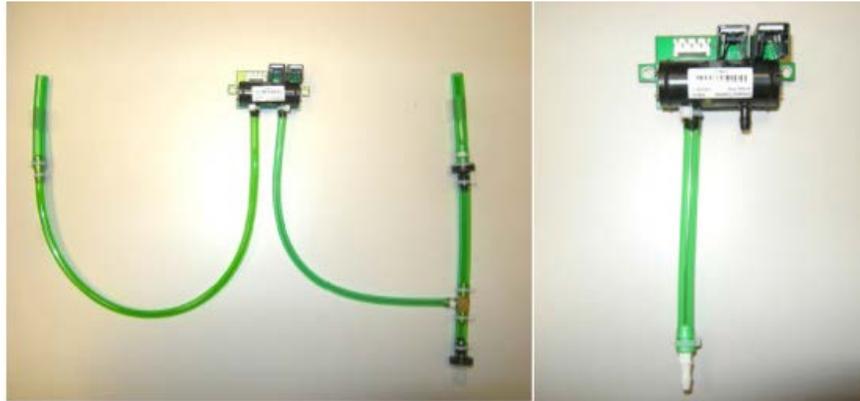
For older NewLife® Elite and Intensity units that contain the ceramic sensor O₂ monitoring boards, as shown below, this particular model board is no longer available.



Old Ceramic O₂ Monitoring Board

Old Ceramic O2 Monitoring Board

If you have this old style board, you will need to order replacement part number KI366-1 (O2 monitoring board retrofit kit) for NewLife® Elite units, or KI366-2 (O2 monitoring board retrofit kit) for NewLife® Intensity units. These kits will include the newer ultrasonic O2 board (shown below), all necessary parts, and instructions needed for installation.



New NewLife® Elite O2 Monitoring board (Left) and NewLife® Intensity O2 Monitoring board (Right)

KI366-1 Retrofit kit, Ultrasonic O2 Board

Verify kit received includes the following items:

(1) CB124-1	O2 monitor circuit board assembly
(2) HA075-1	Spacer
(2) SC007-3	Screw
(3) TW001-4	Small tie wrap
(2) TW002-1	Large tie wrap
(1) WH095-3	Main wire harness
(1) HA088-1	Hardware for O2 light: lens (IL070-1), spacer (MI368-1), lock ring (HA087-1)
(1) SVMP-004	Instructions for HA088-1

Recommended Tools:

Slotted screwdriver
 Philips screwdriver
 Wire Cutters
 Needle-nose pliers

KI366-2 Retrofit kit, Ultrasonic O2 Board, Intensity

Verify kit received includes the following items:

(1) CB124-2	O2 monitor circuit board assembly
(2) HA075-1	Spacer
(2) SC007-3	Screw
(1) TW001-4	Small tie wrap
(2) TW002-1	Large tie wrap
(1) WH095-3	Main wire harness
(1) HA088-1	Hardware for O2 light: lens (IL070-1), spacer (MI368-1), lock ring (HA087-1)
(1) SVMP-004	Instructions for HA088-1

Recommended Tools:

Slotted screwdriver
 Philips screwdriver
 Wire Cutters
 Needle-nose pliers

Don't miss out on our upcoming Service Schools!

**CAIRE Service School Training Seminar
 August 22 – 26, 2016
 at Ball Ground, GA, United States**

CAIRE offers Service Schools covering both LOX and Concentrator lines.

Each class is a comprehensive program that focuses on the technical and service aspects of the CAIRE family products. Class time is divided between lecture and hands-on workshops. The seminars will help the student develop a better understanding of how liquid oxygen equipment or concentrators work, how to identify the symptoms and causes of potential problems and how to use the technical information that is available in the Technical Manuals. Attendance at CAIRE's Service Schools is free, but registration is mandatory. Registration forms must be received one week prior to the start of the class in order to guarantee availability and materials.

Concentrator Service School topics include:

- Concentrator hazards and safety precautions
- Principles of pressure, flow and saturation
- Functions of the major components of a portable/stationary concentrator
- Theory of operation
- Hands-on experience with the concentrators
- Set up and use of test equipment
- Troubleshooting, repair and performance verification/testing procedures with hands-on experience

LOX Service School topics include:

- Liquid oxygen (LOX) hazards and safety precautions
- Principles of pressure, flow and liquid oxygen saturation
- Functions of the major components of a liquid oxygen system
- HELiOS™ system theory of operation
- Reservoir and portable filling procedures with hands-on experience
- Set up and use of test equipment
- Troubleshooting, repair and performance verification/testing procedures with hands-on experience

2016 Training Dates

August 22 - 26, 2016

Concentrator Training: August 22, 23 & 24 in Ball Ground, GA

LOX Training: August 25 & 26 in Ball Ground, GA

November 14 -18, 2016

Concentrator Training: November 14, 15 & 16 in Ball Ground, GA

LOX Training: November 17 & 18 in Ball Ground, GA

September 14-15, 2016 and 28-29, 2016

LOX Training: September 14-15 in Wuppertal, Germany

LOX Training: September 28-29 in Padova, Italy

To register for Service School, please email:

techservice.usa@chartindustries.com for USA Training

jim.gibson@chartindustries.com for European Training

2016 Trade Shows

Show	Date	Location
Pulmonary Horizons	August 12-14, 2016	New York City, NY
European Respiratory Society	September 3-7, 2016	London, UK
Medtrade Fall	November 1-3, 2016	Atlanta, GA