

## February 2023 Med Tips

**Don't miss out on our upcoming Virtual Service Schools!**

### CAIRE Service School Trainings and Webinars 2022

**CAIRE offers In-person and Virtual 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. Registration for CAIRE's Service Schools is mandatory. Registration forms must be received two weeks prior to the start of the class in order to guarantee availability and materials.

**Table 1 - Details of upcoming training.**

Type	Language	Location	Training Dates	Registration by	Training Type
LOX France	French	Toulouse, France	14-March-23	28-February	In person
Conc France	French	Toulouse, France	15-16 March-23	1-March	In person
LOX Italy	Italian	Padova, Italy	23 March-23	10-March	In person
Conc Germany	German	Langenfeld, Germany	4-6 April-23	21-March	In person
LOX LATAM	Spanish	Latin America	18-April-23	4-April	Remote
Conc LATAM	Spanish	Latin America	19-20 April-23	5-April	Remote
Conc USA	English	Ball Ground, GA USA	8-10 May-23	14-April	In person
LOX USA	English	Ball Ground, GA USA	11 May-23	15-April	In person
LOX Germany	German	Langenfeld, Germany	24-May-23	10-May	In person
Conc Italy	Italian	Padova, Italy	6-7 June-23	23-May	In person
LOX Spain	Spanish	Barcelona, Spain	20-June-23	6-June	In person
Conc Spain	Spanish	Barcelona, Spain	21-22 June-23	7-June	In person
Conc USA	English	Ball Ground, GA USA	21-23 August-23	28-July	In person
LOX USA	English	Ball Ground, GA USA	24 August-23	29-July	In person
LOX Germany	German	Langenfeld, Germany	23-August-23	9-August	In person
Conc Germany	German	Langenfeld, Germany	12-14 September-23	29-August	In person
LOX France	French	Toulouse, France	19-September-23	5-September	In person
Conc France	French	Toulouse, France	20-21 September-23	20-September	In person
LOX Italy	Italian	Padova, Italy	11-October-23	27-September	In person
LOX LATAM	Spanish	Latin America	17-October-23	3-October	Remote
Conc LATAM	Spanish	Latin America	18-19 October-23	4-October	Remote
LOX Germany	German	Langenfeld, Germany	8-November-23	25-October	In person
Conc USA	English	Ball Ground, GA USA	13-15 November-23	30-October	In person
LOX USA	English	Ball Ground, GA USA	16 November-23	30-October	In person

\*We reserve the right to cancel training seminars at short notice. Customers should ensure that they take necessary precautions to ensure costs are covered in case of cancellation.

\*\* Training will be in the form of a Webinar.

**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
- Set up and use of test equipment
- Troubleshooting, repair and performance verification/testing procedures

**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
- Set up and use of test equipment

**Please submit your registrations forms no later than the dates in Table 1 above. If you are interested in the service schools mentioned above, and it is past the registration date, please reach out to the registration emails below. Please note that as travel restrictions, and Covid-related guidelines evolve, we intend to restore CAIRE Service School to in person.**

**To register for Service School, please email:**

[Techservice.global@caireinc.com](mailto:Techservice.global@caireinc.com) for USA Training or [jim.gibson@caireinc.com](mailto:jim.gibson@caireinc.com) for European Training.

## **PRODUCT UPDATES**

### **Discontinuation and End of Service Life Liberator® 20 EMS**

Effective December 31, 2022, production and sale of the Liberator 20 EMS Liquid Oxygen Reservoir Product line will cease.

This product is being discontinued to better fulfill the global demand for the remaining product portfolio.

CAIRE will continue to provide service and parts for select components, maintenance, and repairs based on component material availability. For assistance in managing your needs, please reach out to our Global Technical Service team via the contact information listed below.

CAIRE will offer our flagship Liquid Oxygen Reservoir products Liberator and Helios models for other applications globally. Please contact Customer Service, or Technical Service for assistance in determining which replacement model(s) will best fulfill your requirements for your location.

Please refer to Service Bulletin 21498183.

### **Operating Environment Update Saros™ 4000**

CAIRE is updating the operating environmental conditions for Saros 4000 oxygen concentrators. The maximum altitude is changing from 12971ft (3953m) to 18000ft (5486m). The maximum temperature is changing from 40°C (104°F) to 43°C (109°F). This change applies only to Saros 4000 units manufactured after January 20, 2023. Units manufactured before this date are not rated for use in these new conditions. Below is the updated operating conditions.

Operating Environment	
<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Humidity</li> </ul>	32°F to 109°F (0°C to 43°C) 10% to 90%, Non-condensing, 82.4°F (28°C) Maximum Dew Point
Ambient Pressure Range	(506 hPa to 1060 hPa) or (-1253ft [-381m] to 18000ft [5486m])

Please refer to Service Bulletin 21498208.

## Improvement to ATF Stepper Motor Eclipse® and eQuinox™ models

As part of our ongoing continuous improvement program, we have implemented the addition of an M3 securing screw to the shaft on the stepper motor used in our ATF parts (see figures 2 and 3 below for details). This change will further enhance the strength and stability of the component. Table 1. below lists current ATF assemblies affected by this change.



Figure 1 – ATF Assembly

ATF Part Number	Equipment
4829V-SEQ	eQuinox
20626702 (all versions)	Eclipse

Table 1 – Parts affected

Please refer to Service Bulletin 21497155.

## Helpful Hints & FAQs

### Document Update

We advise our valued customers to monitor and check that they are using the most recent revision of any documents for the model of equipment they have. Below is a list of documents that were released/updated during December 2022.

## Med Tips Distribution!

Do you have a colleague that needs to receive the monthly CAIRE Med Tips Newsletter? Please share this link - <http://go.pardot.com/l/710913/2022-01-17/2pgcj9> - with them to subscribe. Thank you and we appreciate your support.

### CONTACT:

For technical questions or concerns, contact Technical Service:

USA: 800-482-2473

[techservice.global@caireinc.com](mailto:techservice.global@caireinc.com)

Europe: +44 (0) 118 936 7060

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*Please consult the applicable product instructions for use for product indications, contraindications, warnings, precautions, and detailed safety information.*

**PN 21498183 A**

**RELEASE DATE:** December 31, 2022

**MODEL:** Liberator 20 EMS

**ISSUE:** Liquid Oxygen Reservoir Product Line Liberator 20 EMS  
Discontinuation and End of Service Life

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**PN 21498208 A**

**RELEASE DATE:** January 20, 2023

**MODEL:** Saros™ 4000

**ISSUE:** Operating Environment Update

**NOTES:** CAIRE is updating the operating environmental conditions for Saros 4000 oxygen concentrators. The maximum altitude is changing from 12971ft (3953m) to 18000ft (5486m). The maximum temperature is changing from 40°C (104°F) to 43°C (109°F). This change applies only to Saros 4000 units manufactured after January 20, 2023. Units manufactured before this date are not rated for use in these new conditions. Below is the updated operating conditions.

Operating Environment <ul style="list-style-type: none"><li>• Temperature</li><li>• Humidity</li></ul>	32°F to 109°F (0°C to 43°C) 10% to 90%, Non-condensing, 82.4°F (28°C) Maximum Dew Point
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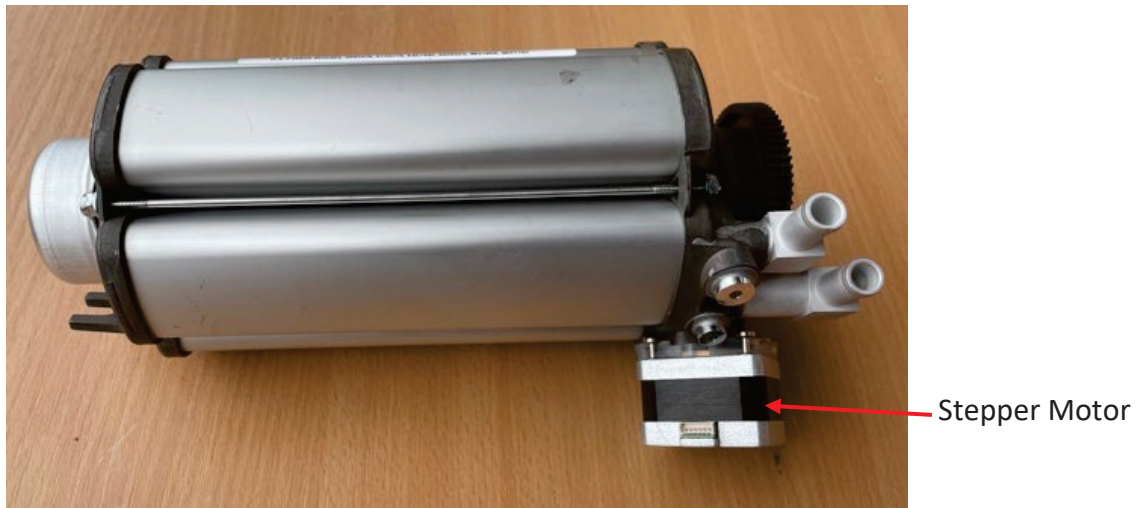
**PN 21497155 A**

**RELEASE DATE:** August 01, 2022

**MODEL:** All currently supported Eclipse® and eQuinox™ models

**ISSUE:** Improvement to ATF Stepper Motor

**NOTES:** As part of our ongoing continuous improvement program, we have implemented the addition of an M3 securing screw to the shaft on the stepper motor used in our ATF parts (see figures 2 and 3 below for details). This change will further enhance the strength and stability of the component. Table 1. below lists current ATF assemblies affected by this change.



**Figure 1 – ATF Assembly**

<b>ATF Part Number</b>	<b>Equipment</b>
4829V-SEQ	eQuinox
20626702 (all versions)	Eclipse

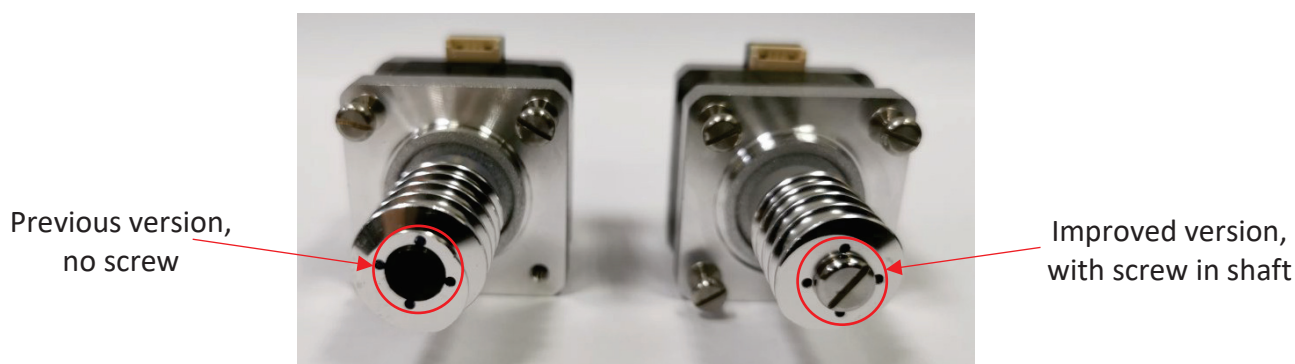
**Table 1 – Parts affected**

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**Figure 2 – Underside of stepper motor**



**Figure 3 – Top side of stepper motor**

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