



December 2024 Med Tips

Don't miss out on our upcoming Service Schools!

CAIRE Service School Trainings and Webinars 2025

CAIRE offers In-person and Virtual Service Schools covering both LOX and Concentrator lines.

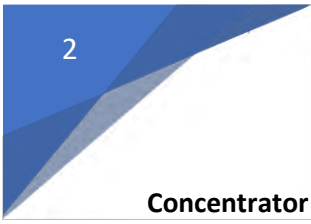
Each class is a comprehensive program that focuses on the technical and service aspects of the CAIRE family products. Class time is divided between lecture and hands-on workshops. The seminars will help the student develop a better understanding of how liquid oxygen equipment or concentrators work, how 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 Spain	Spanish	Toulouse, France	11 February-25	28-January	Remote
CONC Spain	Spanish	Toulouse, France	12-13 February-25	28-January	Remote
LOX Germany	German	Langenfeld, Germany	06 March-25	20-February	In person
LOX France	French	Toulouse, France	18 March-25	04-March	In person
CONC France	French	Toulouse, France	19-20 March-25	04-March	In person
LOX LATAM	Spanish	Toulouse, France	8 April-25	25-March	Remote
CONC LATAM	Spanish	Toulouse, France	09-10 April-25	25-March	Remote
LOX Europe	English	Langenfeld, Germany	17 April-25	03-April	Remote
Conc USA	English	Ball Ground, GA USA	05-07 May-25	18-April	In person
LOX USA	English	Ball Ground, GA USA	08 May-25	18-April	In person
LOX Italy	Italian	Padova, Italy	13 May-25	29-April	In person
CONC Italy	Italian	Padova, Italy	14-15-May-25	29-April	In person
CONC Germany	German	Langenfeld, Germany	07-08 May-25	23-April	In person
LOX ASIA/MEA	English	Toulouse, France	20 May-25	06-May	Remote
CONC ASIA/MEA	English	Toulouse, France	21-22 May-25	06-May	Remote
CONC Europe	English	Langenfeld, Germany	25-26 June-25	11-June	Remote
LOX Germany	German	Langenfeld, Germany	11 September-25	28-September	In person
Conc USA	English	Ball Ground, GA USA	15-17 September-25	29-August	In person
LOX USA	English	Ball Ground, GA USA	18 September-25	29-August	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:

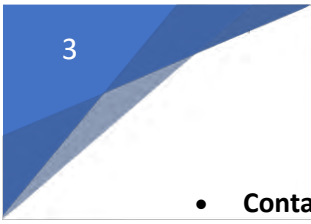
Techservice.global@caireinc.com for USA Training or jim.gibson@caireinc.com for European Training.

PRODUCT UPDATES

Vigilance Case Reporting

If CAIRE equipment is suspected to have been involved in an incident that leads to injury, please follow the following steps:

- **Immediately** quarantine the CAIRE equipment involved. This includes oxygen units (LOX: Base units *and* portable units), nasal cannulas, firebreak, and any accessories in use at the time of the incident. During this quarantine time:
 - No investigation or examination of the unit should occur without a CAIRE representative present.
 - Do not alter or repair the equipment.
 - Do not return the equipment to the field.
- **Immediately** report the incident to CAIRE Customer Service:
 - CAIRE Customer Service will advise you of next steps.
 - CAIRE may confiscate equipment, including accessories, involved in the incident. You are obligated to support CAIRE in coordinating return of this equipment.



- **Contact:**

- US & Canada: customerservice.usa@caireinc.com
- Europe, Middle East, Africa: customerservice.europe@caireinc.com
- Latin America: cslatinamerica@caireinc.com
- China: customerservice.china@caireinc.com
- Japan: customerservice.japan@caireinc.com
- Rest of Asia Pacific: customerservice.asia@caireinc.com

CAIRE Customer Service will require the following from you:

- **Information:**

- CAIRE serial number(s) of equipment involved.
- Name and/or part number of equipment involved.
- Detailed description of the incident. Include only factual information and avoid making assumptions, speculations, or providing personal opinions relating to the incident.
- Date and time of incident.
- Additional information specific to the incident will be collected at the time of reporting.
- All information above should be provided in a complete, clear, and concise manner.

- **Equipment Return:**

- All equipment, including accessories, must be collected for return to a CAIRE service facility.
- Nasal cannulas and prongs are assumed to be contaminated and must be properly packaged to protect the health and safety of CAIRE personnel.

CAIRE Investigation:

- CAIRE's investigation requires evaluation of the equipment involved in the incident.
 - The quality, completeness, and timeliness of CAIRE's investigation depends on the completeness and accuracy of the information provided by you and the immediate return of the equipment.
- Regulatory agencies expect equipment evaluations to be reported within 60-90 days.
 - CAIRE makes every effort to complete investigations faster than this time allowance. CAIRE depends on you to support its efforts in achieving a prompt and complete investigation.
- Vigilance reports are public documents.
 - CAIRE will share with conclusions included in the vigilance reporting with you.
- CAIRE retains all returned equipment for the full statute of limitations or statute of repose, whichever is later, for the country in which the incident occurred.

Proper Handling Liberator

CAIRE would like to remind our valued customers on the proper handling of the Liberator Reservoirs. CAIRE Liberators should always be stored, transported and operated in an upright position. CAIRE has specially designed roller bases (part number 10855678) for moving Liberators short distances over smooth surfaces and hand trucks can be used for rougher surfaces. Liberators should not be leaned on their edge and rolled as this can cause damage to the neck support and insulation systems and void the warranty.



Please refer to Service Bulletin PN 21500382.

CAIRE Liberator Filling Process

When filling the Liberator it is recommended to monitor and regulate the pressure by attaching a pressure testing assembly, PN B-701732-00 (or equivalent) to the flow control valve (FCV) using the FCV extension. The FCV extension elbow supplied with all Liberators should not be fitted during the fill process. This elbow is only required when the unit is used in conjunction with a Humidifier Bottle during oxygen delivery to the patient.

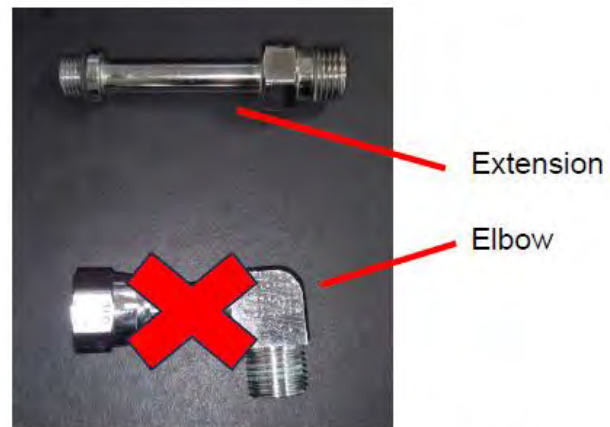


Figure 1 – Pressure testing Assembly Figure 2 – FCV Extension and Elbow

For the full procedure please refer to Service Bulletin PN 21500362.

CAIRE Helios Reservoir Electronic Level Gauge

CAIRE would like to advise customers on the procedure for repairing leaks on the HI/LO connections of the ELG – See Figure 1.



Figure 1 – Area where leaks may occur

If leaks are found in these areas then they should be repaired as per our procedure detailed on Service Bulletin PN 21500363

Helpful Hints & FAQs

FreeStyle Comfort DC Power Operation

The FreeStyle Comfort is fully functional for use on DC power. The FreeStyle Comfort will also recharge the battery pack if needed any time DC power is available. The battery pack will recharge both if the unit is off, or on and in use.

Note: Do not operate the device 12 VDC car outlets while the vehicle is turned off

Instructions:

1. Consult your vehicle Owner's manual for its DC Accessory outlet requirements.



2. Secure your FreeStyle Comfort within your vehicle. Position the unit upright in the vehicle so you can view alerts and alarms after going through this exercise and are using the concentrator.
3. Turn on your motor vehicle.
4. Connect the DC power supply to the power port receptacle front, bottom right side of the FreeStyle Comfort. Be sure to push inward so that the connection is secure.
5. Connect the opposite end of the DC power cord to the automobile or other DC accessory outlet.
6. Turn on the FreeStyle Comfort by pressing the power button and select your prescribed flow setting utilizing the increase (+) or decrease (-) flow buttons.

CAIRE Knowledge Center

For past Med Tips issues, product information, user and technical manuals, accessory sheets please visit <https://www.caireinc.com/providers/business-support-programs/knowledge-center/>

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. There are no documents released/updated during November 2024.

Med Tips Distribution!

The CAIRE team is asking all current subscribers to CAIRE's Med Tips Newsletter to register in order to continue receiving this monthly communication.

Please click this link - <http://go.pardot.com/l/710913/2022-01-17/2pgcj9> - and provide us with your current information. Thank you and we appreciate your support.

CONTACT: For technical questions or concerns, contact Technical Service:

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

PN 21500382 A

RELEASE DATE: December 18, 2024

MODEL: CAIRE Liquid Oxygen Models: Liberator™ Reservoir

ISSUE: Proper Handling Liberator

NOTES: CAIRE would like to remind our valued customers on the proper handling of the Liberator Reservoirs. CAIRE Liberators should always be stored, transported and operated in an upright position. CAIRE has specially designed roller bases (part number 10855678) for moving Liberators short distances over smooth surfaces and hand trucks can be used for rougher surfaces. Liberators should not be leaned on their edge and rolled as this can cause damage to the neck support and insulation systems and void the warranty.



Please contact your local Sales Representative or our Customer Service, or Technical Service teams for assistance with any inquiries or concerns.

CONTACT: For technical questions, contact Technical Service:

North America: 800-482-2473 or +1-770-721-7700

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PN 21500362 A

RELEASE DATE: December 15, 2024
MODEL: CAIRE Liberator all models

ISSUE: Filling Process

NOTES: CAIRE® would like to remind our valued customers of the correct procedure to follow when filling a Liberator Liquid Oxygen Unit. This instruction affects all Liberator models currently in service.

When filling the Liberator it is recommended to monitor and regulate the pressure by attaching a pressure testing assembly, PN B-701732-00 (or equivalent) to the flow control valve (FCV) using the FCV extension. The FCV extension elbow supplied with all Liberators **should not** be fitted during the fill process. This elbow is only required when the unit is used in conjunction with a Humidifier Bottle during oxygen delivery to the patient.



Figure 1 – Pressure testing Assembly Figure 2 – FCV Extension and Elbow

The filling process should be carried out as follows –

1. Ensure that the person carrying out the fill process is using the correct Personal Protective Equipment (PPE) consisting of the following – See figure 3 below.
 - a. Face Shield
 - b. Heavy Insulated Cryogenic Gloves
 - c. Long sleeve shirt
 - d. Long Pants
 - e. Safety shoes/boots

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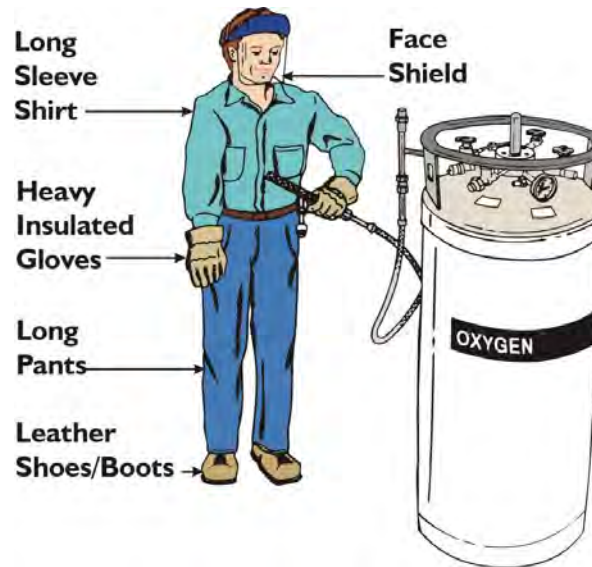


Figure 3 – PPE Required (minimum)

2. Attach a fill adaptor and transfer hose to the source tank. Figure 4.



Figure 4 – Fill adaptor and transfer hose

Note: The source tank should have an operating pressure between 35-50 psi (2.4-3.5 bar)

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3. Purge the transfer hose by depressing or engaging the poppet until liquid oxygen is dispensed. Figure 5.



Figure 5 – purging transfer hose.

4. Wipe the QDVs on the fill adaptor and reservoir dry using a lint-free cloth and swab stick.(supplied with QDV Cleaning kit PN 21484987.) Figures 5 - 7

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Figure 5. QDV Cleaning kit PN 21484987



Figure 6 – Wiping male QDV – ensure to remove all moisture/ice

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Figure 7 – Wiping of fill connectors depending on QDV Fitted.

Note: This step must be carried out prior to each fill.

5. Attach the FCV extension to the FCV and the pressure test assembly to the FCV extension. Open the FCV to a setting of 2.0 LPM or higher. Figure 8.



Figure 8 – FCV extension fitted to FCV and pressure gauge to FCV extension.

Note: FCV elbow is not to be fitted to the FCV extension.

6. Open the Reservoir vent valve using the vent wrench. Figure 9.



Figure 9 – Vent valve wrench fitted

7. Connect the fill adaptor to the QDV on the reservoir. Press down firmly so the QDVs lock into place. Figure 10.



Figure 10 – fill adaptor fitted to QDV

8. Monitor the pressure in the reservoir at all times during the fill and throttle (open/close) the vent valve using the wrench to keep the pressure between 18-24 psi (1.24 – 1.65 bar) Figure 11.
- 9.

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Figure 11

If the pressure is too high – open the vent valve slightly to reduce the pressure.
If the pressure is too low – close the vent valve slightly to raise the pressure.

10. When liquid oxygen begins to spray from the vent valve and the sound changes, the reservoir is full. Close the vent valve to stop the fill and disconnect the fill adaptor by pressing the pop off release button. Figure 12.



Figure 12 – Vent Valve wrench and pop off release button.

11. Disconnect the external pressure gauge from the FCV extension and close the FCV.

Note – Failure to follow the above instructions can cause the equipment to function incorrectly.

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PN 21500363 A

RELEASE DATE: December 15, 2024

MODEL: CAIRE Helios Base Units

ISSUE: ELG(Electronic Level Gauge) Tubing

NOTES: CAIRE® would like to advise customers on the procedure for repairing leaks on the HI/LO connections of the ELG – See Figure 1.

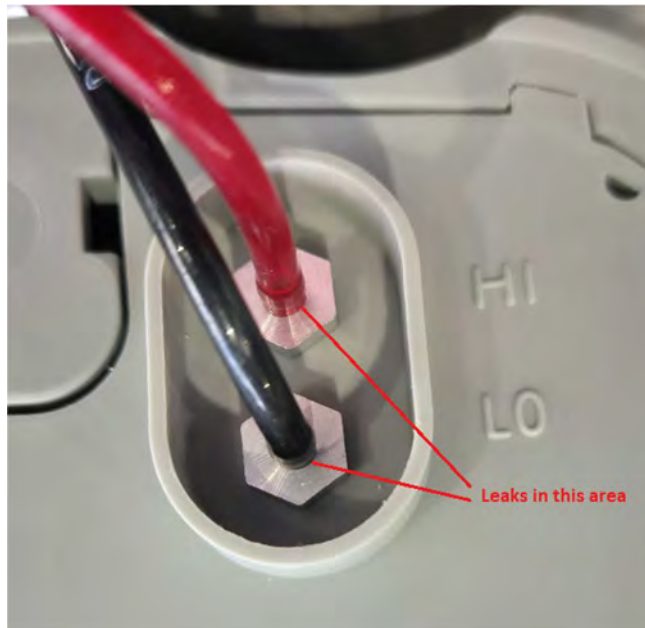


Figure 1 – Area where leaks may occur

If leaks are found in these areas then they should be repaired as follows –

1. Ensure that the equipment is fully empty and remove the tubes from the HI – LO connections.

Warning – Failing to ensure the equipment is empty before removing the tubing can allow Liquid oxygen to escape and cause severe cold burn injuries. Please reference HELIOS Reservoir Technical Manual (PN 14883289) for proper process for emptying reservoir.

2. Trim 3/8" (9mm) from the swollen ends of the tubing. Figure 2.

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Ref 21500363 Rev A

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Figure 2 – Trim tubing 3/8" (9mm)

3. Fit brass clamps PN B-775794-00 to the tubing and reconnect the tubing – red tube to the HI connector and black to the LO connector. Figure 3.



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Figure 3 – Brass Clamps fitted.

4. Seat the clamp over the barbed connections. Figure 4.



Figure 4 – Collars seat over barb.

5. Re-assemble the equipment and carry out a leak test as per the service manual.

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