

August 2022 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.

With the easing of travel restrictions due to COVID, CAIRE will be returning to in-person Service Schools at its Ball Ground location beginning with the November classes. 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 to guarantee availability and materials.

Table 1 - Details of upcoming training.

Type	Language	Location	Training Dates	Registration by	Training Type
LOX	German	Langenfeld, Germany	September 14	September 1	Web Training
LOX	LATAM	Toulouse, France	September 20	September 6	Web Training
CONC	LATAM	Toulouse, France	September 21-22-23	September 6	Web Training
LOX	Italian	Padova, Italy	October 18	October 4	Web Training
CONC	German	Langenfeld, Germany	October 25-26-27	October 11	Web Training
CONC	English	Ball Ground, GA USA	November 7-8-9	October 25	In-person Training
LOX	English	Ball Ground, GA USA	November 10	October 25	In-person Training

*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.

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 registration 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

Storage of CAIRE® Concentrators

CAIRE would like to remind its' customers of the recommended storage environment for CAIRE oxygen concentrators. Table 1. below lists the various products and storage temperature details as given in the relevant technical manual. Further to this CAIRE would also recommend that during extended storage periods, all concentrators are run up for a minimum of 1 hour each month. For portable concentrators, this will require they be switched to test mode for the duration of the run up. The procedure to switch the equipment into Test Mode is detailed in the service bulletin listed below.

Model	Storage Temp (°F)	Storage Temp (°C)
Companion 5	-13°F to 158°F	-25°C to 70°C
Eclipse 5	-4°F to 140°F	-20°C to 60°C
FreeStyle Comfort	-13°F to 158°F	-25°C to 70°C
FreeStyle/FreeStyle 5	-4°F to 140°F	-20°C to 60°C
Focus	-4°F to 140°F	-20°C to 60°C
NewLife Series	-13°F to 158°F	-25°C to 70°C
Visionaire Single LED	-4°F to 140°F	-20°C to 60°C
VisionAire 3 LED	-13°F to 158°F	-25°C to 70°C

Please refer to Service Bulletin PN 21496778 for more details.

FreeStyle® Comfort® Battery Pack Duration Test

The below procedure should be used to test the performance of the FreeStyle Comfort battery pack. Be sure to only use a FreeStyle Comfort that is in good working condition for this test. If the device displays an alarm while in test mode, the unit will need service before being used to perform the battery pack test.

1. Remove the FreeStyle Comfort from any carrying bags, backpacks, or other accessory carrying cases.
2. Fully recharge the battery using either a FreeStyle Comfort connected to AC power or a desktop charger.
3. Install the fully-charged battery pack into a FreeStyle Comfort and remove any external power cords.
4. Turn the FreeStyle Comfort on and enter Test Mode by pressing +, +, -, -, +, -, +, - on the keypad. The entire sequence needs to be entered within 5 seconds. If a mistake is made while entering this sequence, the user must wait 5 seconds before attempting the sequence again.
5. Once in test mode the flow can be increased or decreased as usual. The battery duration test can be done using any flow setting.
6. While in test mode, the unit will pulse at a pre-programmed frequency of 20 breaths per minute.
7. Using a stopwatch or timer, record the time it takes for the FreeStyle Comfort to completely shut down.
8. Take the time recorded and compare it to the full capacity operating time of a new battery pack in the table below. If this time is less than 50% of the full capacity of a new battery pack, it is recommended that the battery pack be taken out of service. See table 1 below.
9. To exit test mode, turn the device off or enter the test mode sequence a second time. Be sure to exit test mode before returning the unit to patient use.
10. If it is determined that the battery is in good condition, fully charge prior to next use.

FreeStyle Comfort Battery Duration				
Setting	New Single (8-cell) Battery Duration	Minimum Duration Time (50% of New Single Battery)	New Double (16-cell) Battery Duration	Minimum Duration Time (50% of New Double Battery)
1	Up to 8 hours	4 hours (4:00)	16 hours	8 hours (8:00)
2	Up to 4 hours	2 hours (2:00)	8 hours	4 hours (4:00)
3	Up to 3 hours	1.5 hours (1:30)	6 hours	3 hours (3:00)
4	Up to 2.25 hours	1.12 hours (1:07)	4.5 hours	2.25 hours (2:15)
5	Up to 2 hours	1 hours (1:00)	4 hours	2 hours (2:00)

Table1 – FreeStyle Comfort Battery Duration

NOTE: There are many factors that influence battery run time on FreeStyle Comfort:

- Ambient temperature
- Ambient pressure
- Compressor hours
- Device condition
- Battery age

FreeStyle Comfort batteries are designed to last 300 charge/discharge cycles: however, battery packs may perform to specifications past 300 charge/discharge cycles.

Note: If the unit is not in use, it is recommended to remove the battery from the unit when not connected to a power source to maximize the battery duration when needed.

Please refer to Service Bulletin PN 21494318 for more details.

Helpful Hints & FAQs

Liberator Harness Heat Shrink

When replacing or repairing the G4 harness on the Liberator range of LOX vessels, please ensure to re-seat the heat shrink over the solder joint as shown in the picture below. Should the heat shrink become damaged, it can be replaced by ordering PN 20677616 TUBE HEAT SHRINK 1' FEP .025WT (1 foot is equal to 30,48 cm length, customer can order quantity of feet as required). See picture below.



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 recently released/updated.

- ML-CONC0074 SOC Combo Piece Rev B
- ML-CONC0082 VisionAire 5 Cutsheet English Rev G
- ML-CONC0084 NewLife Intensity Cutsheet English Rev H
- ML-CONC0052 CAIRE Authorized Internet Retailer US MAP Policy Rev U
- ML-CONC0254 FreeStyle Comfort Infographic GSU Comparison Study Rev A
- ML-CONC0142 Companion 5 Cutsheet Rev F
- MN239-23 NewLife Intensity: Romanian Manual Release Rev F
- ML-CONC0142 Companion 5 Cutsheet Rev G

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 21496778 A

RELEASE DATE: March 20, 2021

MODEL: All CAIRE® Concentrator models

ISSUE: Storage of CAIRE® Concentrators

NOTES: CAIRE® would like to remind its' customers of the recommended storage environment for CAIRE® oxygen concentrators. Table 1. below lists the various products and storage temperature details as given in the relevant technical manual. Further to this CAIRE® would also recommend that during extended storage periods, all concentrators are run up for a minimum of 1 hour each month. For portable concentrators, this will require they be switched to test mode for the duration of the run up. The procedure to switch the equipment into Test Mode is also listed below.

Model	Storage Temp (°F)	Storage Temp (°C)
Companion 5	-13°F to 158°F	-25°C to 70°C
Eclipse 5	-4°F to 140°F	-20°C to 60°C
FreeStyle Comfort	-13°F to 158°F	-25°C to 70°C
FreeStyle/FreeStyle 5	-4°F to 140°F	-20°C to 60°C
Focus	-2°F to 140°F	-20°C to 60°C
NewLife Series	-13°F to 158°F	-25°C to 70°C
Visionaire Single LED	-4°F to 140°F	-20°C to 60°C
VisionAire 3 LED	-13°F to 158°F	-25°C to 70°C

Table1 – Model and Storage Temperature range

Test Mode Procedure for POC Equipment

FreeStyle Comfort - With the unit turned on, press the following sequence of buttons “+ + - - + - + -”. For the unit to recognize the following sequence, it has to be entered within a 5 second period. If the sequence of buttons is entered correctly, the unit will alarm and the screen will change, having a red border around the screen, indicating the unit is now in test mode. The unit will begin auto-pulsing, enabling O2 concentration testing.

To exit test mode, turn off the unit or re-enter the test mode sequence. Be sure to exit test mode before returning the unit to patient use.

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FreeStyle/FreeStyle5 - Connect the POC using the supplied AC power supply to a 100-240 volt, 50/60 Hz electrical outlet. Turn unit on by pressing setting 2 on keypad. Simultaneously press and hold settings [1] and [3] for ten seconds if using a FreeStyle. Simultaneously press and hold settings [1] and [5] for ten seconds if using a FreeStyle 5. After approximately ten seconds, the alarm will sound and the LEDs above each flow setting will illuminate verifying auto pulse mode (Test Mode).

To exit test mode, turn off the unit by pressing the corresponding lit button on the keypad.

Focus - Turn the power switch on. Wait for the red and green LEDs to stop flashing and the green LED to remain on. Within 2 seconds of the green LED staying on, power the unit off. Turn the unit on and off three times while the startup buzzer is alarming leaving the unit on the third time. The red and green LEDs will remain solid for 10 seconds followed by an audible tone indicating that test mode is active.

To exit test mode, power off the Focus with the in-line power switch.

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

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PN 21494318 B

RELEASE DATE: November 19, 2019

REVISION DATE(S): July 28, 2022 (rev B)

MODEL: FreeStyle[®] Comfort[®]

ISSUE: FreeStyle Comfort Battery Pack Duration Test

NOTES: The below procedure should be used to test the performance of the FreeStyle Comfort battery pack. Be sure to only use a FreeStyle Comfort that is in good working condition for this test. If the device displays an alarm while in test mode, the unit will need service before being used to perform the battery pack test.

1. Remove the FreeStyle Comfort from any carrying bags, backpacks, or other accessory carrying cases.
2. Fully recharge the battery using either a FreeStyle Comfort connected to AC power or a desktop charger.
3. Install the fully charged battery pack into a FreeStyle Comfort and remove any external power cords.
4. Turn the FreeStyle Comfort on and enter Test Mode pressing +, +, -, -, +, -, +, - on the keypad. The entire sequence needs to be entered within 5 seconds. If a mistake is made while entering this sequence, the user must wait 5 seconds before attempting the sequence again. Patients should not breath off the device while it is in test mode.
5. Once in test mode the flow can be increased or decreased as usual. The battery duration test can be done at any flow setting.
6. While in test mode the unit will pulse at a pre-programmed frequency of 20 breaths per minute.
7. Using a stopwatch or timer, record the time it takes for the FreeStyle Comfort to completely shut down.
8. Take this time recorded and compare it to the full capacity operating time of a new battery pack in the table below. If this time is less than 50% of the full capacity of a new battery pack, it is recommended that the battery pack be taken out of service. See table 1 below:
9. To exit test mode, turn the device off or enter the test mode sequence a second time. Be sure to exit test mode before returning the unit to patient use.
10. If it is determined that the battery is in good condition, fully charge prior to next use.

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FreeStyle Comfort Battery Duration				
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3	Up to 3 hours	1.5 hours (1:30)	6 hours	3 hours (3:00)
4	Up to 2.25 hours	1.12 hours (1:07)	4.5 hours	2.25 hours (2:15)
5	Up to 2 hours	1 hour (1:00)	4 hours	2 hours (2:00)

Table 1 – Battery Duration

NOTE: There are many factors that influence battery run time on FreeStyle Comfort:

- Ambient temperature
- Ambient pressure
- Compressor hours
- Device condition
- Battery age

FreeStyle Comfort batteries are designed to last 300 charge/discharge cycles: however, battery packs may perform to specifications past 300 charge/discharge cycles.

Note: If the unit is not in use, it is recommended to remove the battery from the unit when not connected to a power source to maximize the battery duration when needed.

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