



September 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 in order to guarantee availability and materials.

Table 1 - Details of upcoming training.

Type	Language	Location	Training Dates	Registration by	Training Type
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
LOX	English	Ball Ground, GA USA	November 10	October 25	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 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

FreeStyle® Comfort® Battery Pack Duration

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.

For more details on battery pack duration test, please refer to Service Bulletin 21494318

End of Service Life for G3 Meters, Harnesses and Manifolds

In June 2006, CAIRE released the G4 liquid level gauge, harness, manifold assembly, and other accessories. At that time production of the G3 liquid level gauges, harnesses, and manifolds was discontinued. However, customers were still able to purchase G3 parts and accessories until the existing stock was depleted. As of January 2008, CAIRE no longer supplies G3 liquid level gauges or its components, including the decal plate, harnesses, and manifolds; therefore, G4 parts must be ordered.

G4 liquid level gauges display the liquid level via LEDs arranged in a semi-circle. Additionally, a smaller battery is in the meter housing and is rated at 5 years with 30 actuations/day.

Please refer to Service Bulletin 13938524 for G3 retrofit kit part numbers.

Helpful Hints & FAQs

CAIRE Serial Number

EXAMPLE: GP B01 14 47 0006

The serial number has 5 distinct sections :

1. The site of Manufacture:
 1. CB = Ball Ground, GA, USA
 2. SD = San Diego, CA, USA
 3. BU = Buffalo, NY, USA
 4. GP = Chengdu, China

2. Internal code representing the product line:
 1. B01 = AirSep Stationary Oxygen Concentrator (NewLife, VisionAire)
 2. B02 = AirSep Portable Oxygen Concentrator (Focus, FreeStyle 3, FS5)
 3. B09 = SeQual Concentrators (Eclipse, eQuinox)
 4. B30 = Liquid Oxygen Reservoirs (Companion, HELiOS, Liberator)
 5. B31 = Liquid Oxygen Portables (Companion, HELiOS, Sprint, Stroller)
 6. B37 = OCD Liquid Oxygen Portables (Spirit)
 7. B52 = CAIRE Portable Oxygen Concentrator (FreeStyle Comfort)
 8. B69 = CAIRE Stationary Oxygen Concentrator (Companion 5)

3. The year of manufacture ('14' means the device was manufactured in 2014)
4. The week of manufacture ('47' means the device was manufactured the 47th week of the year)
5. Sequential serial number of the of devices produced that week ('0006' was the 6th unit produced in the week)

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 August 2022.

- 14940840 Service Manual Companion 5 MDD V2 Rev B

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:**

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

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				
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 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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PN 13938524

RELEASE DATE: January 11, 2008

REVISION DATE(S): February 14, 2019 (rev B), August 15, 2022 (rev C)

MODEL: CAIRE LOX Units with G3 Meters, Harnesses, or Manifolds

ISSUE: End of Service Life for G3 Meters, Harnesses, and Manifolds

NOTES: In June 2006, CAIRE released the G4 liquid level gauge, harness, manifold assembly, and other accessories. At that time production of the G3 liquid level gauges, harnesses, and manifolds were discontinued. However, customers were still able to purchase G3 parts and accessories until the existing stock was depleted. As of January 2008, CAIRE no longer supplies G3 liquid level gauges or its components including the decal plate, harnesses, and manifolds; therefore, G4 parts must be ordered.

G4 liquid level gauges display the liquid level via LEDs arranged in a semi-circle. Additionally, a smaller battery is in the meter housing and is rated at 5 years with 30 actuations/day. Reference Figures 1 and 2 below to see the G4 meter.



Figure 1: Front of G4 liquid level gauge.



Figure 2: Back of G4 liquid level gauge.

The G4 harness features a low-temperature PVC insulated wire and an externally threaded feed-through nut, see Figure 3.

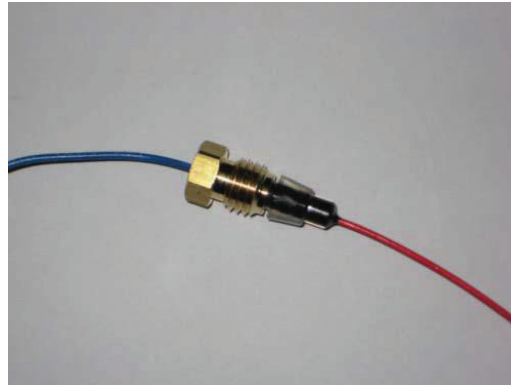


Figure 3: G4 harness assembly.

The G4 manifold is largely unchanged except for the feed-through fitting. The feed-through fitting is now internally threaded to accommodate the G4 harness feed-through nut, see Figure 4.



Figure 4: G4 feed-through fitting.

Reference Table 1 below for the part numbers required. Should you require to change the manifold from G3 to G4, please check service bulletin PN 20819911.

Table 1: G3 Retrofit Kits Part Numbers

Unit	Goal	Description	PN(s) Needed
G3 Sprint SF/TF	Replace Harness	G4 Service Meter Dome Cover Blue Harness Assy. Sprint	13352401 12932526 21360363
G3 Sprint SF/TF	Replace Meter	G4 Service Meter Dome Cover Blue Harness Assy. Sprint	13352401 12932526 21360363
G3 Sprint SF	Replace Manifold/Probe	Manifold Assy. SF G4 Service Meter Dome Cover Blue	10665401 13352401 12932526
G3 Sprint TF	Replace Manifold/Probe	Manifold Assy. TF G4 Service Meter Dome Cover Blue	10665381 13352401 12932526
G3 Stroller SF/TF	Replace Harness	G4 Service Meter Dome Cover Blue Harness Assy. Stroller	13352401 12932526 21360363
G3 Stroller SF/TF	Replace Meter	G4 Service Meter Dome Cover Blue Harness Assy. Stroller	13352401 12932526 21360363
G3 Stroller SF	Replace Manifold/Probe	Manifold Assy. SF G4 Service Meter	21495020S 13352401
G3 Stroller TF	Replace Manifold/Probe	Manifold Assy. TF G4 Service Meter	21495026S 13352401
G3 Liberator DF/SF/TF	Replace Harness	G4 Service Meter Harness Assy. Lib Harness Adapter Nut Ground Cable Adapter Bracket G4 (optional) Meter Screw (qty 2)	13352401 13787869 13717262 13199741 13708104 14263928
G3 Liberator DF/SF/TF	Replace Meter	G4 Service Meter Harness Assy. Lib Harness Adapter Nut Ground Cable Adapter Bracket G4 (optional) Meter Screw (qty 2)	13352401 13787869 13717262 13199741 13708104 14263928

G3 Liberator 20 DF	Replacement Manifold/Probe	Manifold Assy. 20 DF G4 Service Meter Ground Cable Adapter	20583547 13352401 13199741
G3 Liberator 20 SF	Replacement Manifold/Probe	Manifold Assy. 20 DF Top Fill QDV Plug G4 Service Meter Ground Cable Adapter	20583547 20802161 13352401 13199741
G3 Liberator 20 TF	Replacement Manifold/Probe	Manifold Assy. 20 DF G4 Service Meter Side Fill QDV Plug Side Fill QDV O-Ring Ground Cable Adapter	20583547 13352401 10566446 CA404838 13199741
G3 Liberator 30 DF	Replacement Manifold/Probe	Manifold Assy. 30 DF G4 Service Meter Ground Cable Adapter	20583578 13352401 13199741
G3 Liberator 30 SF	Replacement Manifold/Probe	Manifold Assy. 30 DF Top Fill QDV Plug G4 Service Meter Ground Cable Adapter	20583578 20802161 13352401 13199741
G3 Liberator 30 TF	Replacement Manifold/Probe	Manifold Assy. 30 DF G4 Service Meter Side Fill QDV Plug Side Fill QDV O-Ring Ground Cable Adapter	20583578 13352401 10566446 CA404838 13199741
G3 Liberator 37 DF	Replacement Manifold/Probe	Manifold Assy. 30 DF G4 Service Meter Ground Cable Adapter	20583577 13352401 13199741
G3 Liberator 37 SF	Replacement Manifold/Probe	Manifold Assy. 30 DF TF QDV Plug G4 Service Meter Ground Cable Adapter	20583577 20802161 13352401 13199741
G3 Liberator 37 TF	Replacement Manifold/Probe	Manifold Assy. 30 DF G4 Service Meter Side Fill QDV Plug Side Fill QDV O-Ring Ground Cable Adapter	20583577 13352401 10566446 CA404838 13199741
G3 Liberator 45/60 DF	Replacement Manifold/Probe	Manifold Assy. 45/60 DF G4 Service Meter Ground Cable Adapter	20583576 13352401 13199741
G3 Liberator 45/60 SF	Replacement Manifold/Probe	Manifold Assy. 45/60 DF TF QDV Plug G4 Service Meter Ground Cable Adapter	20583576 20802161 13352401 13199741

G3 Liberator 45/60 TF	Replacement Manifold/Probe	Manifold Assy. 45/60 DF G4 Service Meter Side Fill QDV Plug Side Fill QDV O-Ring Ground Cable Adapter	20583576 13352401 10566446 CA404838
G3 High-Flow Stroller	Replace Harness	Harness Assy. Hi Flow G4 Service Meter	21360363 13352401
G3 High-Flow Stroller	Replace Meter	Harness Assy. Hi Flow G4 Service Meter	21360363 13352401
G3 High-Flow Stroller SF	Replace Manifold/Probe	Manifold Assy. Hi Flow SF G4 Service Meter	21495020S 13352401
G3 High-Flow Stroller TF	Replace Manifold/Probe	Manifold Assy. Hi Flow TF G4 Service Meter	21495026S 13352401

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