June/July 2016 Med Tips

Helpful Hints and FAQs

Replacing the SeQual® Integra™ Filter

The SeQual® Integra's™ Compressor Intake Filter (PN: **SP4405-SEQ**) will include a hook and loop fastener to better attach the filter to the unit. This design improvement was made to account for the slight difference in mating of the filter to the muffler assembly.

Instructions for Installing Hook and Loop and Filter

Step 1. Open the SeQual® Integra's™ casing to service the air filter. Remove the old filter and discard. See below for the Muffler Assembly without Filter.

Step 2. Reverse the "nap" direction on the bottom hook and loop strap of the muffler assembly such that the hook and loop material faces up.

Step 3. Remove the release liner from the hook and loop strip, PN B-776202-00. Apply the strip to the filter as shown.

Step 4. Cut the top strap on the muffler assembly, such that 3.5" of strap remains.

Step 5. Install the filter into the muffler assembly by securing the bottom strap to the hook and loop strip on the filter and then over top of the top strap. Ensure port on filter is not obstructed by strap.

AirSep® FreeStyle® 3 Hour Meter (All Models)

Q: How do I retrieve the hours from my AirSep FreeStyle?

A: The AirSep FreeStyle has an hour meter located on the circuit board. The toggle button can be used to cycle between the Historical Channel and the Maintenance Channel.

Historical Channel:
* Displays total operating hours
* Cannot be reset

Maintenance Channel:
* Indicated by a wrench icon under "h"
* Hours between maintenance intervals
* Yellow service light at 5,000 hours
* Light will remain on until reset by technician

- Note: If the AirSep Freestyle is equipped with a 5,000 hour service light, the maintenance interval hour meter must be reset after service is performed to clear the yellow light. To reset the Maintenance Channel, have the Maintenance Channel displayed, indicated by a wrench symbol, and hold the toggle button down continuously until '0' is displayed on the screen.

Pulse Dose Mode Explained for SeQual® Eclipse® and eQuinox™ Units

- **Q:** What is the correlation between the Pulse Flow Settings and Continuous Flow Settings?

- **A:** There is no exact correlation between these two settings because of the way the SeQual® Eclipse® and eQuinox™ deliver pulse flow. These units have a fixed bolus delivery on pulse mode, meaning that the mL delivered with each bolus (inhalation) is constant regardless of the patient's breath rate. For example, pulse setting of 2.0 is displayed on the SeQual® Eclipse® screen as "32mL 2.0". This means that at setting number 2.0, the user will receive a 32 mL bolus, or pulse of air, each time they breathe in. Because the bolus is the same regardless of breath rate, it is difficult to directly equate the pulse setting number to a liter per minute equivalent. CAIRE has developed eTASK to assist with helping find the optimum pulse setting for each specific patient.

Download Chart's Free eTASK App:

CLICK HERE   **CLICK HERE**

Installing the AirSep® Focus® or AirSep® FreeStyle® 5 Data Interface Program for Reading and Recording Hours (All Models)

1. Insert the AirSep Focus data cable (MI347) into an open USB port on your PC.

2. Start the program by clicking on the AirSep Focus Data Interface icon on your desktop.

3. When the program starts, you will see the AirSep Focus Data Interface box appear.

4. Unscrew the two screws on the bottom of the AirSep Focus and remove the covers.

5. Lay the Focus unit on its back, and then connect the other end of the data cable to J9 on the circuit board. *The black wire goes to the top pin as shown.*

6. The Data Cable is now connecting the PC and the AirSep Focus. Next plug the AirSep Focus unit into AC power, and then put the unit into test mode.

☑ **NOTE**	*Note: Communication is only possible when the AirSep Focus unit is in test mode.* To activate the unit's test mode: • Turn the unit on. • After the 10 second start up time, turn the unit off and on consecutively 3 times (within 4 seconds). • The unit will then start to auto pulse and is now in test mode. • If unit is not pulsing, turn unit off and repeat all steps.

7. When the AirSep Focus unit enters Test Mode, the AirSep Focus Data Interface Program on your PC will display hours in the Unit Run Time box, and the Compressor Run Time box within 2 minutes.
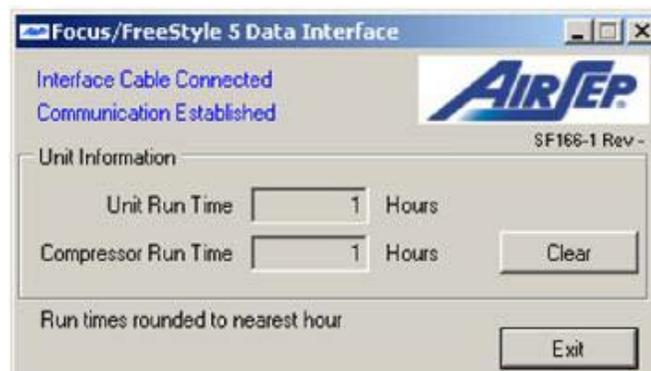
8. You may now record the hours from the Unit Run Time box. When recorded, turn the AirSep Focus off, disconnect AC power, disconnect data cable, and re-assemble.

Retrieving the Number of Hours from AirSep® FreeStyle® 5 (All Models)

1. Insert the USB end of the USB to TTL Serial Cable (PN: MI347-1) into an open USB port on your PC.
2. Step 2. Unscrew the 3 screws on the front of the AirSep FreeStyle 5 and remove the front cover.
3. Step 3. Insert the other end of the USB to TTL Serial Cable into the AirSep FreeStyle 5 circuit board as oriented below with the black wire to the left.
4. Get the AirSep FreeStyle 5 in test mode. (Turn the unit on by pressing the flow setting button of 4. After the 10 second startup time, press flow setting buttons 1 and 5 simultaneously for 3 seconds. All 5 of the LED's will light after 3 seconds and the unit will be in test mode and should start pulsing.)
5. Click the icon on your desktop to start the program.
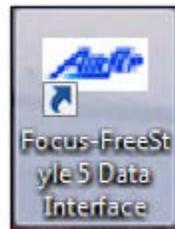
6. A window will display that will show unit run time and compressor run time.

Gen 4 Meter Calibration

The Gen 4 meter should be calibrated when:

- A replacement meter is installed on a portable or reservoir.
- A faulty reading is suspected.

- Multiple LEDs illuminate when pressing the green button. Multiple LEDs indicate an error code. There are a few different error codes that may present themselves on the Gen 4 meter any time that the contents are not read properly in the LOX tank. Any time an error message is given, the first troubleshooting step is to attempt to recalibrate the meter.

Calibration should be done when the reservoir or portable is empty. The calibration process is simple. However, it is important to remember that there are two distinct steps in the calibration process. You must first perform the "empty calibration" to give the unit a base capacitance value for comparison when the tank is empty. You must then complete the second step, the RP6 — G4 Meter Span Setting Adjustment, or "simulated full calibration," to give the meter a reference capacitance value for when the tank is full. This second step is also performed while the tank is empty.

Below is the procedure to calibrate a Gen 4 meter:

Empty Capacitance Calibration:

1. Completely empty Dewar.
2. Allow Dewar to warm to room temperature.
3. Enter Calibration Mode
    a) Press and hold the hidden calibrate button located on the center of the meter face.
    b) While holding the calibrate button, press and hold the green operate button.
    c) Continue holding both buttons until LED 1 and LED 8 alternately flash. The meter is now in calibration mode.
    d) Release both buttons
       NOTE: Step 4 must be performed within 45 seconds or calibration mode will exit.
4. Press and hold the hidden calibrate button for 3 seconds. LED 1 will flash for 3 seconds followed by a short pause.
5. If successful, LED 1 will flash again for 3 seconds and exit calibration mode storing the new empty value.
6. If calibration is unsuccessful, multiple LEDs will flash. The LEDs indicate what error has occurred.

RP6 — G4 Meter Span Setting Adjustment:

1. Enter Calibration Mode.
    a) Press and hold the hidden calibrate button located on the center of the meter face.
    b) While holding the calibrate button, press and hold the green operate button.
    c) Continue holding both buttons until LED 1 and LED 8 alternately flash. The meter is now in calibration mode.
    d) Release both buttons. **NOTE:** *Step 2 must be performed within 45 seconds or calibration mode will exit.*
2. Press the green operate button 3 times within a 5 second period.
3. One of the meter's LEDs will light continuously, signifying one of the CAIRE models shown below.
4. Press the hidden calibrate button until the LED which matches the unit being calibrated is continuously lit. See the table below for the correct LED setting for your unit.

MODEL	LED SETTING
Liberator 10	LED 1
Liberator 20	LED 2
Liberator 30	LED 3
Liberator 37	LED 3
Liberator 45	LED 7
Liberator 60	LED 6
Low Loss 31 & Low Loss 41	LED 3
Stroller & Hi-Flow	LED 8
Sprint	LED 3

5. Once the correct LED for your unit is lit, press the green "operate button" to store the setting and exit calibration mode.
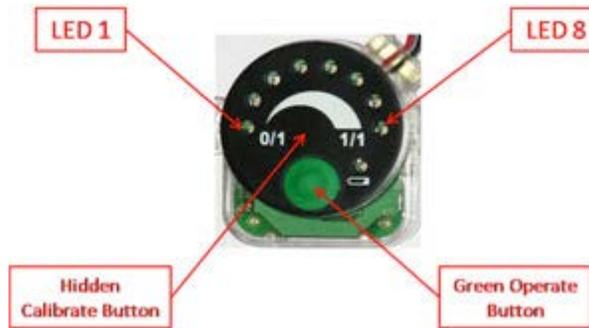
Accessories and Parts

Reservoir Vent Valve Wrench:

Vent valve wrench for all Liberator® reservoirs manufactured before July 2012. This vent valve wrench may also be used on all Liberator®, HELiOS™ and Companion® reservoirs made by CAIRE manufactured after July 2012.

PN: 97202005

<u>Reservoir Vent Valve Wrench:</u>

Vent valve wrench for all HELiOS™ and Companion® reservoirs manufactured before July 2012. This vent valve wrench may also be used on all Liberator®, HELiOS™ and Companion® reservoirs made by CAIRE manufactured after July 2012.

PN: B-775182-00

AirSep® Focus™ Hour Functionality

<u>General Information</u>

The AirSep Focus portable oxygen concentrator requires minimal maintenance. A periodic concentration check is required, and its check interval is to be determined by the Oxygen Provider. The felt compressor inlet filter should be replaced every 5,000 hours.

The AirSep Focus will display the number of hours that it has been in operation by a systematic flashing of both of the LEDs at the top of the unit. The procedure to enter "Time Reading Mode" is as follows:

1. Turn the AirSep Focus on and allow it to warm up for approximately 10 seconds. The red and green light will alternately flash during this time.
2. Once the warm up is complete, only the green light will remain on. Within 4 seconds, turn the AirSep Focus off.
3. To enter Time Reading Mode the unit will need to be turned on and off 6 times leaving the unit on and running the sixth time.
4. Once in Time Reading Mode, the unit will display the number of hours in the following manner.

   a. The yellow LED will flash and the unit will beep indicating the digit in the ones place.
   b. The red LED will flash and the unit will beep indicating the digit in the tens place.
   c. The green LED will flash and the unit will beep indicating the digit in the hundreds place.
   d. Both the red and the green LEDs will flash and the unit will beep indicating the digit in the thousands place.
   e. Once the full number has been displayed, the unit will reset and start the sequence again. As it resets, the red and the green LEDs will be lit and the unit will beep for approximately 2 seconds.
   f. To exit Time Reading Mode, the unit will need to be powered off and then back on.

SeQual® eQuinox™ Battery Pack and Desktop Charger

The Standard 12-Cell Battery Pack for the SeQual® eQuinox™ can be ordered using PN 20952900 and the 24-Cell Battery Pack (for extended durations) can be ordered using PN 20952906. These items will charge when installed inside the SeQual® eQuinox™ unit and connected to external power. The SeQual® eQuinox™ Desktop Charger can be ordered using PN 4980-SEQ.

Item Image	Item Number	Description
	20952900	eQuinox 12-Cell Battery Pack: Standard battery pack for use with the SeQual eQuinox.
	20952906	eQuinox 24-Cell Battery Pack: Larger battery pack for extended use of the SeQual eQuinox.
	4980-SEQ	eQuinox Desktop Charger: Tabletop charger to recharge both the 12 and 24-cell battery packs from AC power. Includes charger and AC power supply.

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 European CAIRE Liquid Oxygen Reservoirs and Portables fall under these requirements.

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

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.

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CAIRE Service School Training Seminar
November 14 -18, 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
November 14 -18, 2016
Concentrator Training: November 14, 15 & 16 in Ball Ground, GA
LOX Training: November 17 & 18 in Ball Ground, GA

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
Medtrade Fall	November 1-3, 2016	Atlanta, GA Booth 1210
Medica	November 14-17, 2016	Dusseldorf, GER Booth 11C67

PLEASE CONSULT THE APPLICABLE PRODUCT INSTRUCTIONS FOR USE FOR PRODUCT INDICATIONS, CONTRAINDICATIONS, WARNINGS, PRECAUTIONS, AND DETAILED SAFETY INFORMATION.