



October 2022 Med Tips

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 trainings.

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.

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 continue restoring 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

Eclipse 5 Power Supply

Eclipse power supply (CAIRE PN:21334759) replaces the previous version (CAIRE PN: 20852326) on all newly manufactured 2-LED Eclipse 5 devices as well as all spare power supply part kit numbers in Table 1 below. Power supply 21334759 is backwards compatible with all previously manufactured 2-LED and 3-LED Eclipse 5 units.

Note: Please reference Service Bulletin 21220048 when using the 3-LED power supply (PN 5941-SEQ (US), 20553100 (EU), and 20553098 (UK)) with 2-LED units as this will require label changes on the device.

Table 1: Spare Power Supply Kit PNs

20852326S	Kit, Power Supply US Cord
20852325S	Kit, Power Supply EU Cord
20852324S	Kit, Power Supply UK Cord

Figures 1 and 2 display the different power connections between the new part number 21334759 and the previous part number 20852326. The 21334759 new style power supplies will require different power cable – see Table 2 for details of different cord part numbers.



Figure 1: Current Eclipse 5 power supply (PN 21334759)



Figure 2: Previous Eclipse 5 power supply (PN 20852326)



Figure 3: Eclipse 3-LED Power Supply (PN 5940-SEQ)

Table 2: – Power Cord part numbers

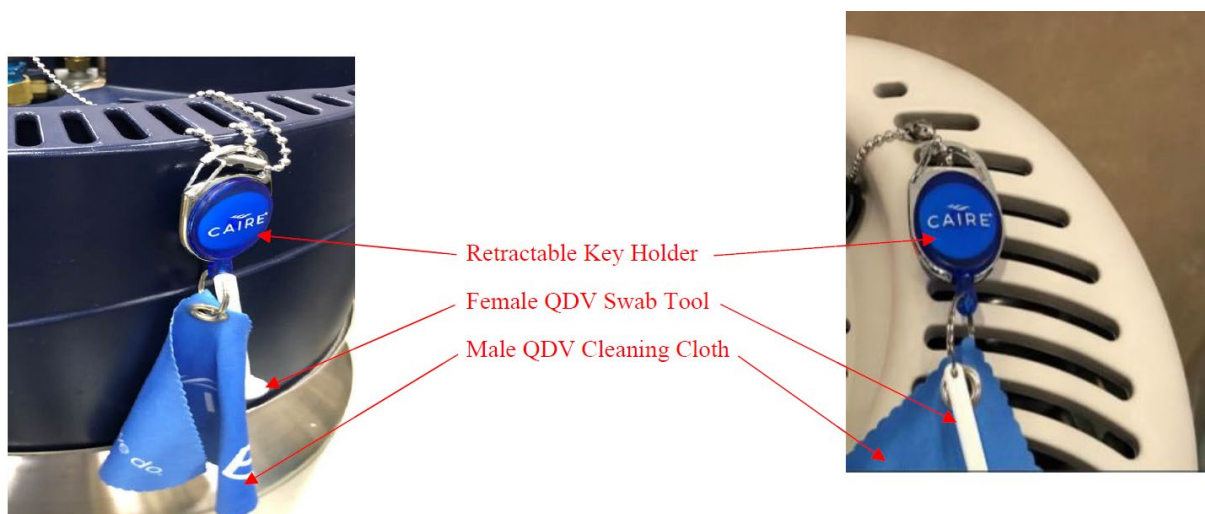
Power Supply PN	Region	Cord only PN	Spare Power Supply Plus Cord
5940-SEQ	USA	3588-SEQ	20852326S
5940-SEQ	UK	3590-SEQ	20852324S
5940-SEQ	EU	3589-SEQ	20852325S
5940-SEQ	AUS	20669418	21334759 + 21463776
20852326	USA	4997-SEQ	20852326S
	UK	4999-SEQ	20852324S
	EU	4998-SEQ	20852325S
	AUS	21347183	21334759 + 21463776
21334759	USA	21336129	20852326S
	UK	21475874	20852324S
	EU	21336073-C4	20852325S
	AUS	21463776	21334759 + 21463776

*Use above table in conjunction with Figure 1-3 to identify cable only part number required.

Please refer to Service Bulletin PN 21464617 for more details.

CAIRE LOX Products QDV Cleaning Kit

CAIRE released a cleaning kit for the quick disconnect valve (QDV). The kit includes a Lint Free Cloth and a Lint Free Swab-it kit tool to clean the moisture from the QDV's. It is extremely important to wipe dry the fill connectors on the Liquid oxygen equipment prior to the commencement of any fill. The contents of kit PN 21484987 (Picture 1) will help simplify this task. Please refer to instruction PN 21486583 on how to use the cleaning kit.



Picture 1

Please refer to Service Bulletin PN 21495938 for more details.

Liberator® G4 Lock Plate

Effective February 01, 2021, the material used for the 16 position G4 lock plate, PN 13095627, was changed from Lexan Polycarbonate to Aluminum 6061-T6. This change was implemented as a continuous improvement measure which significantly enhances the durability of the lock plate. It also meets torque requirements as described in IEC 60601-1 Ed. 3.1 Clause 15.4.6. Please note this is only a material change, there is no change to the part number. See figure 1 below.



Figure 1 - Left old plastic lock plate. Right new aluminum lock plate

Please refer to Service Bulletin PN 21496733 for more details.

Liberator Relief/Economizer Valve Design Change

Effective April 1st, 2020, all Liberator units manufactured after this date have the secondary relief valve (SRV) relocated from the flow control valve (FCV) to the economizer valve (Picture 1). The new SRV has PN 21215214 and the new economizer valve PN 21341644. The old SRV and economizer valves can still be ordered with same PN 13110217 and PN 10531833LAN.



Picture 1

Please refer to Service Bulletin PN 21495031 for more details.

Helpful Hints & FAQs

LOX Time Use Duration Chart

A LOX Time Use Duration Chart can be downloaded from the CAIRE website in different languages. It also includes details for pediatric flows. The chart can be found under every LOX product section in the Knowledge Centre (located at <https://www.caireinc.com/providers/business-support-programs/knowledge-center/>) as well as on all LOX product pages.

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.

- ML-LOX0015-5 HI FLOW CUTSHEET ITALIAN Rev F
- ML-LOX0015-3 HI FLOW CUTSHEET SPANISH Rev D
- ML-LOX0015-1 HI FLOW CUTSHEET FRENCH Rev E
- ML-LOX0015-2 HI FLOW CUTSHEET GERMAN Rev E
- ML-LOX0015 HI FLOW STROLLER CUTSHEET US ENGLISH Rev G
- MN238-E VISIONAIRE 5 manual, English
- MN238-12 VISIONAIRE 5 manual, Arabic

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.

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



SERVICE BULLETIN

PN: 21464617

RELEASE DATE: September 3, 2019

REVISION DATE(S): September 23, 2019 (Rev B)
February 01, 2020 (Rev C)

MODEL: SeQual® Eclipse 5®

ISSUE: New Release Eclipse 5 Power Supply

NOTES: Effective September 2019 Eclipse power supply (CAIRE PN:21334759) will replace the previous version (CAIRE PN: 20852326) on all newly manufactured 2-LED Eclipse 5 devices as well as all spare power supply part kit numbers in Table 1 below.

Table 1: Spare Power Supply Kit PNs

20852326S	Kit, Power Supply US Cord
20852325S	Kit, Power Supply EU Cord
20852324S	Kit, Power Supply UK Cord

Power supply 21334759 is backwards compatible with all previously manufactured 2-LED and 3-LED Eclipse 5 units.

Note: Please reference Service Bulletin [21220048](#) when using the 3-LED power supply kit PN 5941-SEQ (US), 20553100 (EU), and 20553098 (UK)) with 2-LED units as this will require label changes on the device.

Figures 1 and 2 display the different power connections between the new part number 21334759 and the previous part number 20852326. The 21334759 new style power supplies will require different power cable – see Table 2 for details of different cord part numbers.



Figure 1: Current Eclipse 5 power supply (PN 21334759)



Figure 2: Previous Eclipse 5 power supply (PN 20852326)

Figure 3 displays the power supply connection for use on the 3-LED version Eclipse models. These part numbers are obsolete, replaced by the power supply kits listed above.



Figure 3: Eclipse 3-LED Power Supply (PN 5940-SEQ)

Table 2: – Power Cord part numbers

Power Supply PN	Region	Cord only PN	Spare Power Supply Plus Cord
5940-SEQ	USA	3588-SEQ	20852326S
5940-SEQ	UK	3590-SEQ	20852324S
5940-SEQ	EU	3589-SEQ	20852325S
5940-SEQ	AUS	20669418	21334759 + 21463776
20852326	USA	4997-SEQ	20852326S
	UK	4999-SEQ	20852324S
	EU	4998-SEQ	20852325S
	AUS	21347183	21334759 + 21463776
21334759	USA	21336129	20852326S
	UK	21475874	20852324S
	EU	21336073-C4	20852325S
	AUS	21463776	21334759 + 21463776

*Use above table in conjunction with Figure 1-3 to identify cable only part number required.

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SERVICE BULLETIN

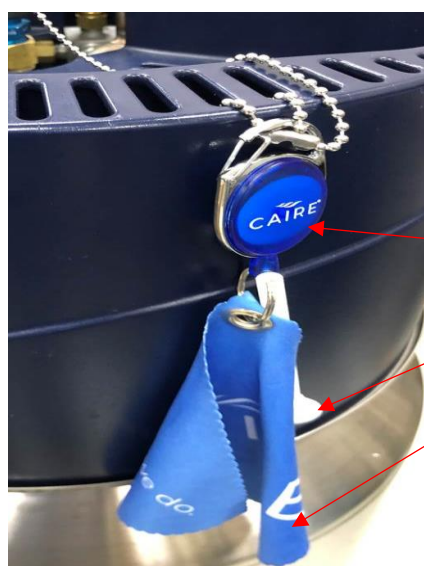
PN: 21495938

RELEASE DATE: December 23, 2020

MODEL(S): CAIRE® LOX Products – Liberator®, Helios™, Companion® Base units and Portables, Sprint™/Stroller®.

ISSUE: CAIRE LOX Products QDV cleaning kit

NOTES: CAIRE is releasing a cleaning kit for the QDV. The kit includes a Lint Free Cloth and a Lint Free Swab-it kit tool to clean the moisture from the QDV's. It is extremely important to wipe dry the fill connectors on the Liquid oxygen equipment prior to the commencement of any fill. The contents of kit PN 21484987 (Picture 1) will help simplify this task. Please refer to instruction PN 21486583 on how to use the cleaning kit.



Retractable Key Holder

Female QDV Swab Tool

Male QDV Cleaning Cloth



Picture 1

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

RELEASE February 10, 2021

DATE:

MODEL: Liberator® Lox Unit

ISSUE: 16 position Liberator® G4 lock plate PN 13095627 material change

NOTES: Effective February 01, 2021, the material used for the 16 position G4 lock plate, PN 13095627, has been changed from Lexan Polycarbonate to Aluminum 6061-T6. This change has been implemented as a continuous improvement measure which significantly enhances the durability of the lock plate and does also meet torque requirements as described in IEC 60601-1 Ed. 3.1 Clause 15.4.6. Please note this is only a material change, there is no change to the part number. See figure 1 below.



Figure 1 - Left old plastic lock plate. Right new aluminum lock plate

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SERVICE BULLETIN

PN: 21495031

RELEASE DATE: June 8, 2020

REVISION DATE: July 28, 2020 (Rev. B); May 01, 2021 (Rev. C)

MODEL: Liberator® Reservoir, Sprint™, Stroller®, and Hi Flow Stroller®

ISSUE: Availability of Spare Flow Control Valves, Secondary Relief Valves, Manifolds, and Economizers

NOTES: This bulletin is meant to clarify the service part usage for previous design and current design liquid oxygen portables and reservoirs. Refer to the tables below for the appropriate service part for a given device and the example figures for previous vs. current parts.

Table 1: Portables

Current Design (manufactured after 1/27/2020) Beginning S/N CBB3120041085	Previous Design (manufactured before 1/27/2020)	Type Valve	Model	Notes
Flow Control Valves				
11014539TS	11014521T	FCV 20 PSI - 6 LPM	Sprint/Stroller W/ Meter	
14812860TS	14034703T	FCV 20 PSI - 15 LPM	Hi Flow Stroller W/ Meter	
21366017S	14700235T	FCV 20 PSI - 2 LPM	Sprint/Stroller W/ Meter	Pediatric
11014539TS	11014539TS	FCV 20 PSI - 6LPM	Sprint/Stroller W/ Scale	
14812860TS	14812860TS	FCV 20 PSI - 15 LPM	Hi Flow Stroller W/ Scale	
14700235T	14700235T	FCV 20 PSI - 2 LPM	Sprint/Stroller W/ Scale	Pediatric
Secondary Relief Valves				
10491253T	13110225	SRV 30 psi new/ 65 psi old	Hi Flow Strollers	
Manifolds				
10564619S	21495020S	Manifold Assy 1.2L SF SVCE	Stroller/Hi Flow Stroller	
10812918S	21495021S	Manifold Assy 1.2L W/Auto Close VV, SVCE	Stroller/Hi Flow Stroller	
10812900S	21495022S	Manifold Assy 1.2L, Germany, SVCE	Stroller/Hi Flow Stroller	
10597787S	21495026S	Manifold Assy 1.2L TF, SVCE	Stroller/Hi Flow Stroller	

NOTE: Portable Scale units in Table 1 did not undergo the FCV change. Included for reference.

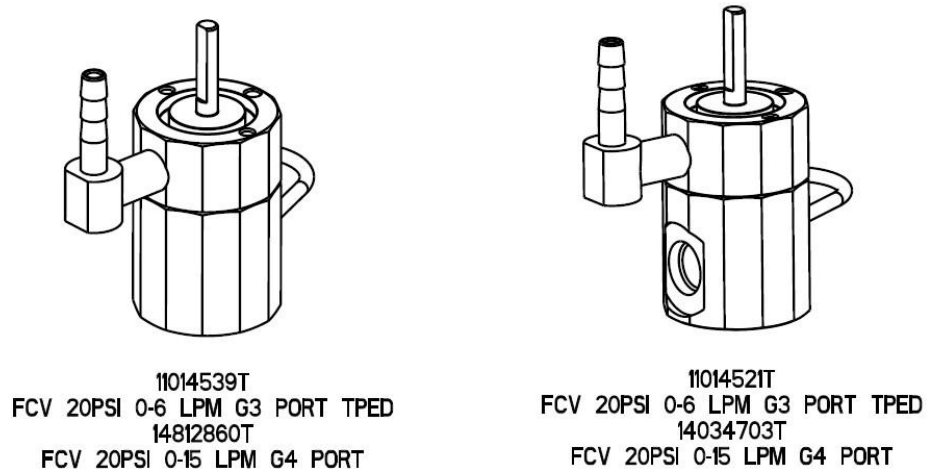


Figure 1: Portable Flow Control Valves

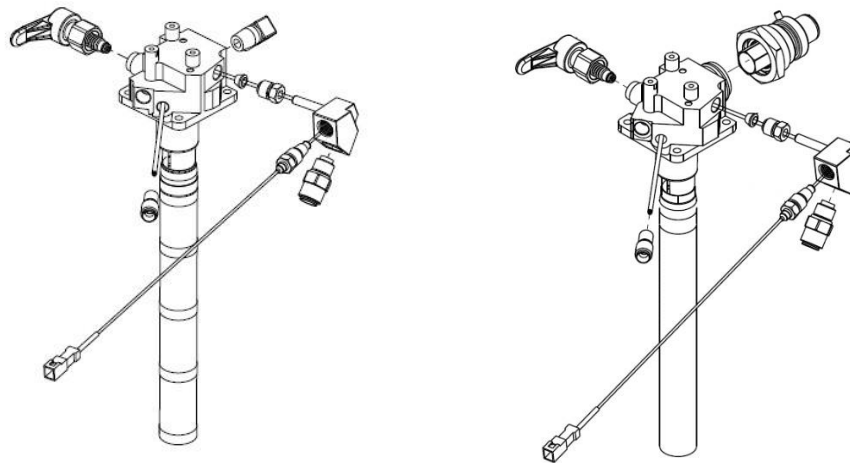


Figure 2: Manifold Assembly - Current version

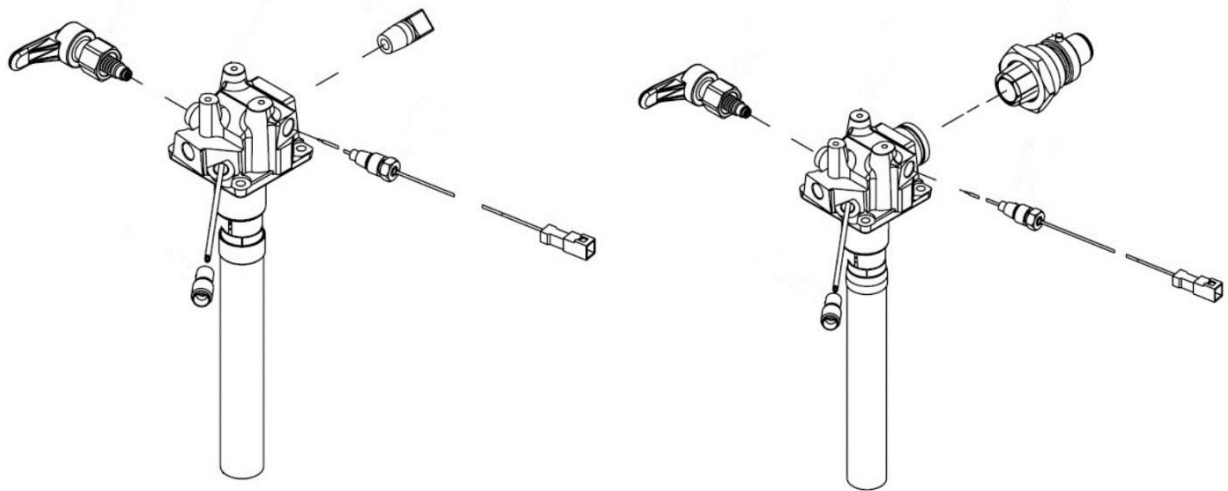


Figure 3: Manifold Assembly - Previous Version

Table 2: Liberator

Current Design (manufactured after 4/1/2020) Beginning S/N CBB3020140001	Previous Design (manufactured before 4/1/2020)	Type Valve	Model	Notes
Flow Control Valves				
21449808S	13110145	FCV 20 PSI - 15 LPM	Liberator - 20 PSI	16 Pos. Gen 4
21449806S	13110153	FCV 50 PSI - 15 LPM	Liberator - 50 PSI	16 Pos. Gen 4
21494787S	14700243T	FCV 20 PSI - 2 LPM	Liberator - 20 PSI	Pediatric
N/A	10480511T	FCV 20 PSI - 6 LPM	Liberator - 20 PSI	12 Pos. Gen 3
N/A	11018986T	FCV 20 PSI - 15 LPM	Liberator - 20 PSI	12 Pos. Gen 3
Secondary Relief Valves				
21215214	13110217	SRV 30 PSI	Liberator - 20 PSI	
21215227	*13110225	SRV 65 PSIG	Liberator - 50 PSI	*Was Used also on Hi Flow Strollers (manufactured until 1/27/2020)
Economizer Regulators				
21341644	10531833LAN	Econ. Regulator 20 psi	Liberator - 20 PSI	
21341648	10670260	Econ. Regulator 50 PSI	Liberator - 50 PSI	
21341652	10670251	Econ. Regulator 20 PSI Japan	Liberator - 20 PSI	
Bracket Assembly				
13307335S	21495392S	Bracket Lib S/A G4 Svce	Liberator	
Economizer Assembly				
13277851S	21495393S	Economizer S/A 20PSI Svce	Liberator - 20 PSI	

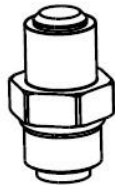


21449808
FCV 20PSI 0-15 LPM G4 BASE

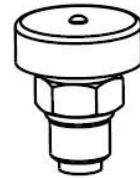


13110145
FCV 20PSI 0-15 LPM G4 BASE

Figure 4: Liberator Flow Control Valves

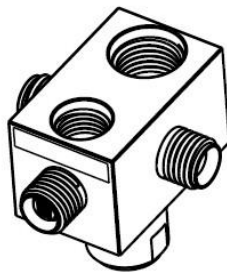


21215214
RV 9/16-20UNF 30PSI TPED

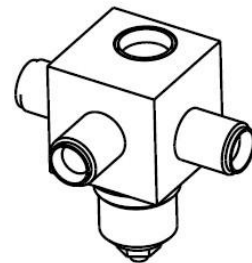


13110217
RV 7/16-20UNF 30PSI TPED

Figure 5: Liberator Secondary Relief Valves



21341644
REGULATOR 20PSI ECON W/PRV-SRV PORT



10531833LAN
REGULATOR 20PSI ECON W/PRV PORT

Figure 6: Liberator Economizer Regulators

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