

## Don't miss out on our upcoming Virtual Service Schools!

### **CAIRE Service School Training Webinars 2021**

#### **CAIRE offers 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.

Туре	Language	Location	Training Dates	Registration by
CONC	English	Ball Ground, GA USA	May 3-5	April 19
LOX	English	Ball Ground, GA USA	May 6	April 22
LOX	English	Wokingham, UK	May 12	April 28
CONC	English	Wokingham, UK	May 18-20	May 4
LOX	French	Toulouse, France	June 1	May 15
CONC	Italian	Padova, Italy	June 8-9	May 25
CONC	German	Langenfeld, Germany	June 15-17	June 1
CONC	English	Ball Ground, GA USA	August 16-18	August 2
LOX	English	Ball Ground, GA USA	August 19	August 5
LOX	German	Langenfeld, Germany	September 15	September 1
LOX	Italian	Padova, Italy	October 19-20	October 5
LOX	English	Ball Ground, GA USA	November 11	October 28
CONC	English	Ball Ground, GA USA	November 8-10	October 25
CONC	English	Wokingham, UK	November 16-18	November 2

Table 1 - Details of upcoming training.

#### **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. Service schools may move from a virtual to a physical format depending on safety and travel restrictions.

#### To register for Service School, please email:

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

## **PRODUCT UPDATES**

### **CAIRE® LOX Products QDV Cleaning Kit**

CAIRE has 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, 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 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**

All Liberator units manufactured after April 1, 2020, 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 is 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**

LOX time use duration chart can be downloaded from the website in different languages and includes pediatric flows. It is accessible in the Literature section :

https://www.caireinc.com/providers/business-support-programs/knowledge-center/

#### **Med Tips Distribution!**

Need to update your Med Tips contact information or add a member of your team to our distribution list? Email us today with your new information!

**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.



# SERVICE BULLETIN

PN: 21495938

**RELEASE DATE:** December 23, 2020

**MODEL(S):** CAIRE® LOX Products – Liberator®, Helios<sup>TM</sup>, Companion® Base units

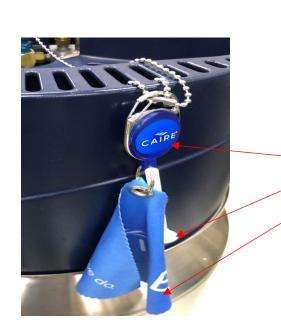
and Portables, Sprint<sup>TM</sup>/Stroller®.

**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.

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# SERVICE BULLETIN

PN: 21496733

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)

**MODEL:** Liberator® Reservoir, Sprint<sup>TM</sup>, 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

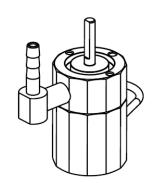
and the example figures for previous vs. current parts.

**Table 1: Portables** 

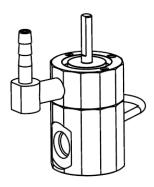
Current Design	Previous						
(manufactured	Design						
after 1/27/2020) Beginning S/N	(manufactured before						
CBB3120041085	1/27/2020)	Type Valve	Model	Notes			
Flow Control Valves							
11014539TS	11014521T	FCV 20 PSI - 6 LPM	Sprint/Stroller W/ <b>Meter</b>				
14812860TS	14034703T	FCV 20 PSI - 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							
		Manifold Assy 1.2L SF					
21495020S	10564619S	SVCE	Stroller/Hi Flow Stroller				
		Manifold Assy 1.2L W/Auto					
21495021S	10812918S	Close VV, SVCE	Stroller/Hi Flow Stroller				
		Manifold Assy 1.2L,					
21495022S	10812900S	Germany, SVCE	Stroller/Hi Flow Stroller				
		Manifold Assy 1.2L TF,					
21495026S	10597787S	SVCE	Stroller/Hi Flow Stroller				

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



11014539T FCV 20PSI 0-6 LPM G3 PORT TPED 14812860T FCV 20PSI 0-15 LPM G4 PORT



11014521T FCV 20PSI 0-6 LPM G3 PORT TPED 14034703T FCV 20PSI 0-15 LPM G4 PORT

**Figure 1: Portable Flow Control Valves** 

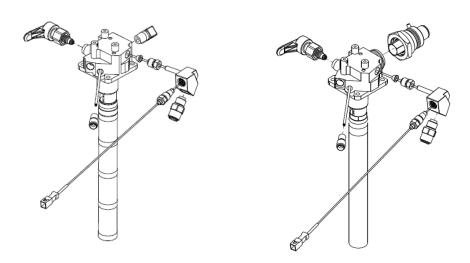


Figure 2: Manifold Assembly - Current version

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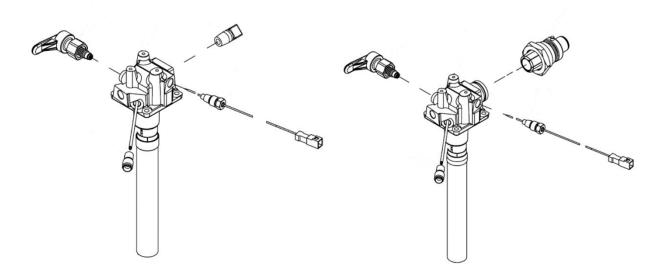
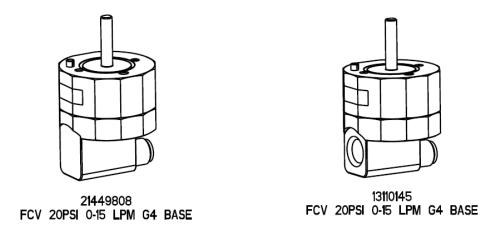


Figure 3: Manifold Assembly - Previous Version

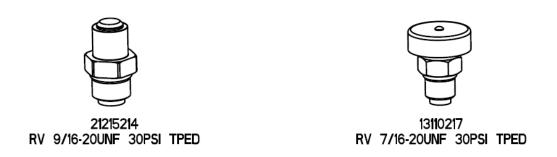
**Table 2: Liberator** 

Current Design (manufactured	Previous Design						
after 4/1/2020)	(manufactured						
Beginning S/N	before	TD 37.1	34 11	<b>.</b>			
CBB3020140001	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				
				*Was Used also on Hi Flow			
				Strollers (manufactured			
21215227	*13110225	SRV 65 PSIG	Liberator - 50 PSI	until 1/27/2020)			
Economizer Regulators							
21341644	10531833LAN	Econ. Regulator 20 psi	Liberator - 20 PSI				
21341648	10670260	Econ. Regulator 50 PSI	Liberator - 50 PSI				
		Econ. Regulator 20 PSI					
21341652	10670251	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				

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**Figure 4: Liberator Flow Control Valves** 



**Figure 5: Liberator Secondary Relief Valves** 



21341644 10531833LAN REGULATOR 20PSI ECON W/PRV-SRV PORT REGULATOR 20PSI ECON W/PRV PORT

**Figure 6: Liberator Economizer Regulators** 

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