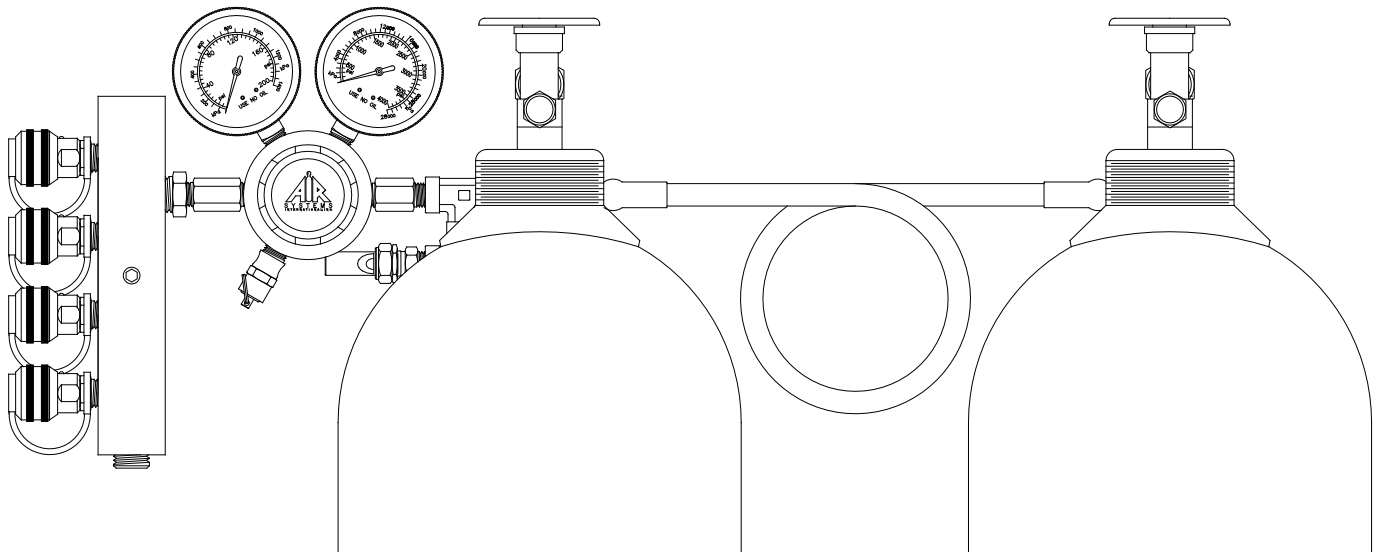


Manual No. WHP002  
Rev. 6 September 2012

# OPERATING MANUAL

## CBA SERIES

### CASCADE BREATHING AIR ASSEMBLIES



[Air Systems CBA3-346NB Cascade Breathing Air Assembly SCBA](#)

[Air Systems CBA3-347NB Cascade Breathing Air Assembly SCBA](#)

[Air Systems CBA4-702NB Cascade Breathing Air Assembly SCBA](#)

[Air Systems RG-6000FIL Fill Regulator](#)

[Air Systems RG-3000 Adjustable SCBA Breathing Air Regulator](#)

[Air Systems RG-5000 Adjustable SCBA Breathing Air Regulator](#)

## **WARRANTY DISCLAIMER**

Air Systems' manufactured equipment is warranted to the original user against defects in workmanship or materials under normal use for one year from the date of purchase. Any part which is determined by Air Systems to be defective in material or workmanship will be, as the exclusive remedy, repaired or replaced at Air Systems' option. This warranty does not apply to electrical systems or electronic components. Electrical parts are warranted, to the original user, for 90 days from the date of sale. During the warranty period, electrical components will be repaired or replaced at Air Systems' option.

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The purchaser shall be solely responsible for compliance with all applicable Federal, State and Local OSHA and/or MSHA requirements. Although Air Systems International believes that its products, if operated and maintained as shipped from the factory and in accordance with our "operations manual", conform to OSHA and/or MSHA requirements, there are no implied or expressed warranties of such compliance extending beyond the limited warranty described herein. Product designs and specifications are subject to change without notice. **Rev. 2, 12/98**

Air leaks are not covered under warranty except when they result from a defective system component, i.e. an on/off valve or regulator or upon initial delivery due to poor workmanship. Air leaks due to poor delivery or damage will be covered under delivery claims. Minor air leaks are part of routine service and maintenance and are the responsibility of the customer just as are filters and oil changes.

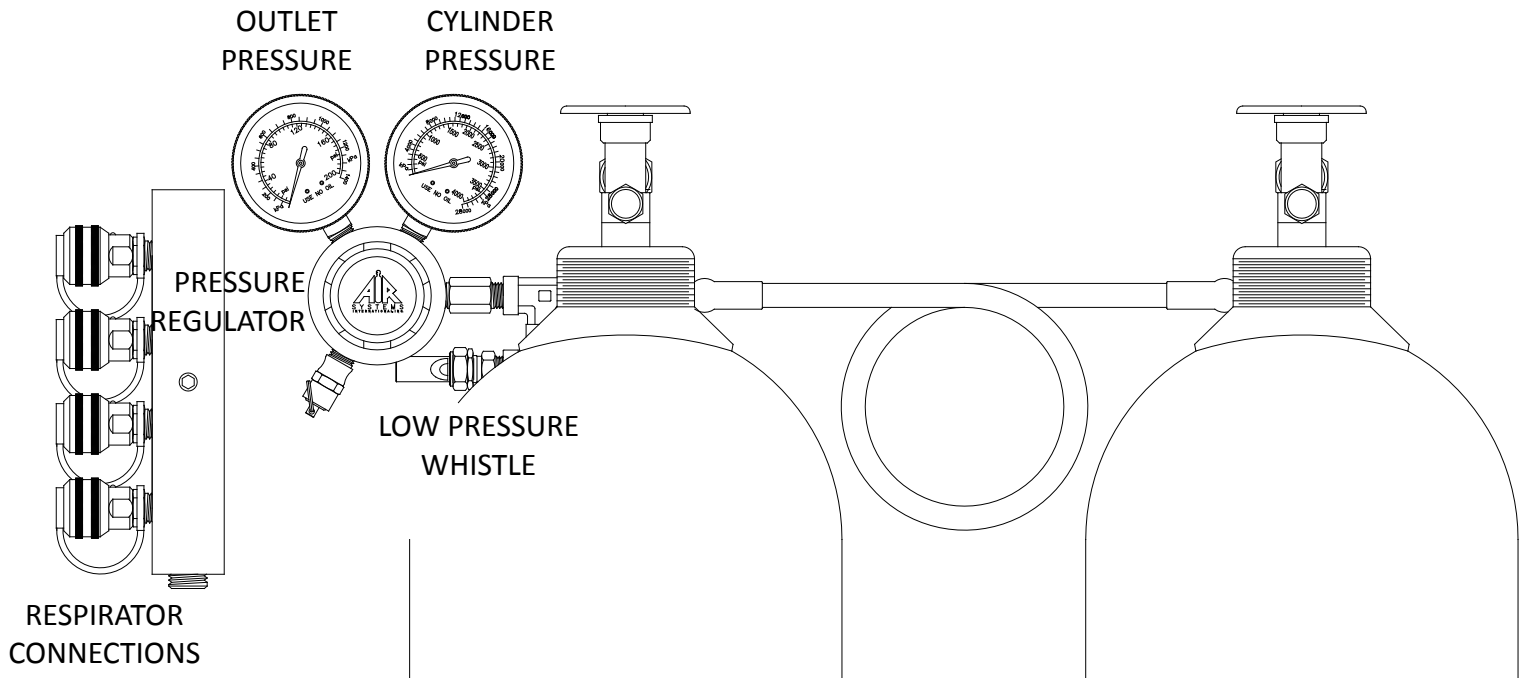
## OVERVIEW

These cascade breathing air assemblies are designed to provide breathing air to respiratory devices. A pressure reducing regulator is supplied to deliver the correct pressure recommended by the respirator manufacturer. A low pressure warning whistle is supplied to notify the user that the cascade system has dropped below 500psi (35 bar). (An optional low pressure alarm bell is available.) Check valves are installed on each cylinder stem to prevent pressure equalization. These valves also allow the user to independently change cylinders without depressurizing the complete system.

## SPECIFICATIONS

Model #	HP-CW1-346 / CBA_-346NB	HP-CW1-347 / CBA_-347NB	HP-CW1-702 / CBA_-702NB
Cylinder Connection(s)	CGA-346 Wrench Tight 3000 PSI Maximum	CGA-347 Wrench Tight 5000 PSI Maximum	CGA-702 Wrench Tight 6000 PSI Maximum
Check Valve(s)	Built Into CGA-346 Stem	In-line	In-line
Whip Pressure Rating	5000 PSI with a 4:1 Safety Factor		6000 PSI with a 4:1 Safety Factor
Pressure Regulator	3000 PSI Max. Inlet Pressure/ 125 PSI Max. Outlet Pressure	5000 PSI Max. Inlet Pressure/ 125 PSI Max. Outlet Pressure	6000 PSI Max. Inlet Pressure/ 150 PSI Max. Outlet Pressure
Relief Valve	125 PSI	125 PSI	125 PSI
Low Pressure Warning Alarm	Pneumatic Low Pressure Whistle or Optional Low Pressure Bell Set @ 500 psi		
Intrinsically Safe	Yes, No Electronic Devices		

## SETUP/OPERATION



### STEP 1)

Install the CGA connections on the cylinder valves and tighten with a wrench.

**NOTE: CGA-347 connections will work on both CGA-346 and CGA-347 cylinder valves. CGA-346 and CGA-702 will only work on CGA-346 and CGA-702 cylinder valves respectively.**

### STEP 2)

Open one cylinder. At this time the low pressure warning alarm will sound until it sets itself at approximately 800 psi for the whistle or approximately 1000 psi for the bell (optional). Check reading on cylinder pressure gauge to verify that it is full. Close the cylinder valve.

### STEP 3)

Set the required respirator pressure with the regulator control knob. Turn the knob clockwise to increase pressure or counterclockwise to decrease pressure. Bleed pressure by partially engaging a male plug into one of the respirator connections while watching the cylinder pressure gauge. This depressurizes the regulator assembly simulating low pressure. The low pressure warning alarm will begin to sound at approximately 500 psi.

### STEP 4)

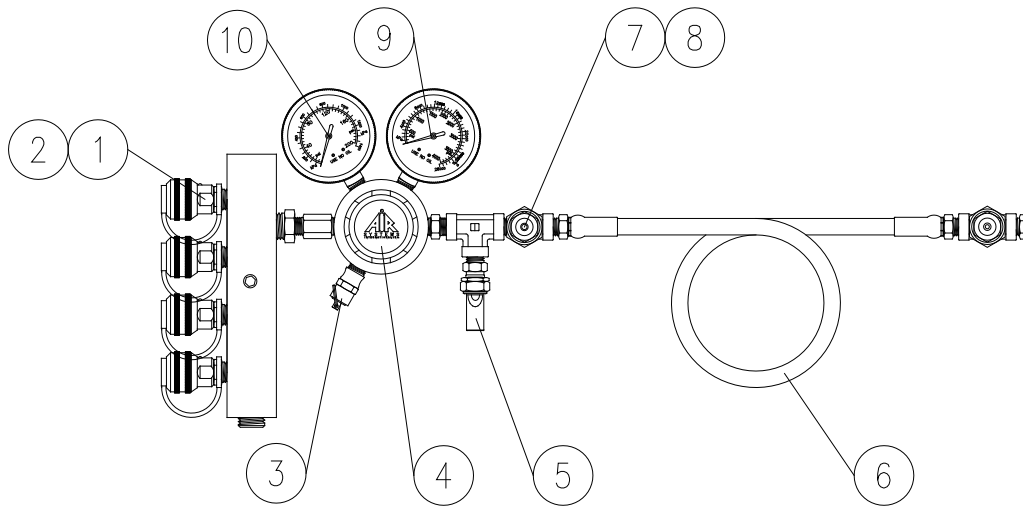
If unsure, verify the other connected cylinders are full by repeating STEP 3.

### STEP 5)

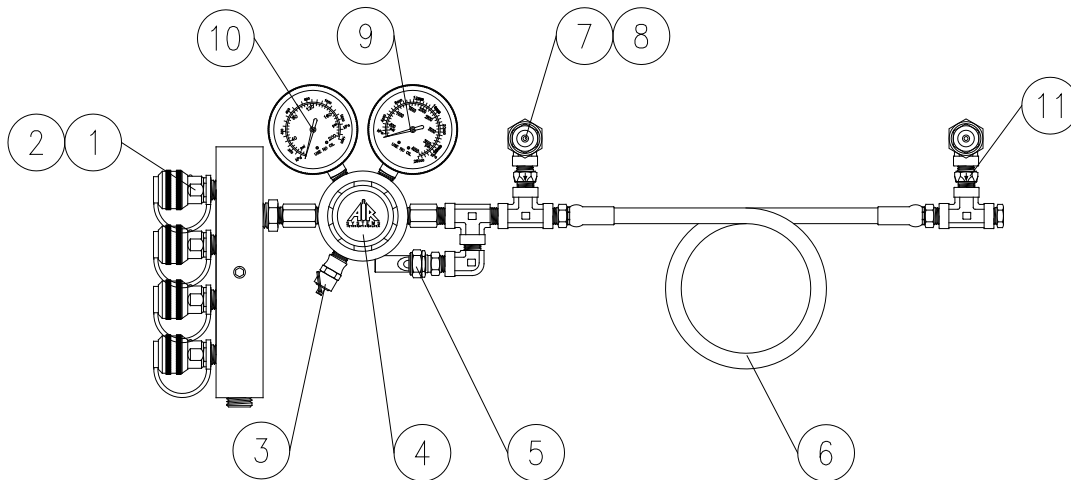
Attach respirators and hoses to the respirator connections and readjust pressure regulator if necessary. The system is now operational.

**NOTE: This system is equipped with check valves at each cylinder connection to prevent back flow from the other cylinder(s) in use. If a cylinder is drained during operation that cylinder may be disconnected and removed from service and a full cylinder may be connected in its place without interruption in operation.**

## MODEL CBA\_-346



## MODEL CBA\_-347 AND CBA\_-702



ITEM #	DESCRIPTION	CBA_-346	CBA_-347	CBA_-702
1	HANSEN COUPLING	QDH3SL6M	QDH3SL6M	QDH3SL6M
1A	SCHRADER COUPLING	QDSSL6M	QDSSL6M	QDSSL6M
2	HANSEN DUST CAP	QDH3DCAP	QDH3DCAP	QDH3DCAP
2A	SCHRADER DUST CAP	QDSDCAP	QDSDCAP	QDSDCAP
3	125 PSI RELIEF VALVE	VR4125BR	VR4125BR	VR4125BR
4	PRESSURE REGULATOR ONLY (NO GAUGES)	REG-3000NG	REG-5000NG	REG009
4A	PRESSURE REGULATOR WITH GAUGES	REG-3000	REG-5000	N/A
5	LOW PRESSURE WHISTLE	AC-PA25	AC-PA25	AC-PA25
5A	LOW PRESSURE BELL (NOT SHOWN)	AC-PA25B	AC-PA25B	AC-PA25B
6	30" WHIP ASSEMBLY WITH CGA CONNECTION	CWCV-30	CWCV-30HP	CWCV-702
7	WRENCH TIGHT NUT	HPBR025	HPBR049	SS702N
8	WRENCH TIGHT STEM	HPBR027	HPBR050	SS702S
9	INLET PRESSURE GAUGE	GA254KSREG	GA256KSREG	GA256KSREG
10	OUTLET PRESSURE GAUGE	GA25200SRG	GA25200SRG	GA25200SRG
11	INLINE CHECK VALVE	N/A *	VC4SMMSS	VC4SMMSS

\* Check valve is built into the wrench tight stem (HPBR027)

## HIGH PRESSURE AIRLINE MAINTENANCE AND INSPECTION

<b>Monthly</b>	Check regulators, gauges, and valves for external leakage.
	Inspect valves for proper closure.
	Check whips for flexibility, wear, leakage, blisters or other hose damage.
	Inspect check valves for leakage.
<b>Annually</b>	Check relief valve's pressure setting.
	Check regulator function by opening and closing regulator knob fully.
<b>Every 4 years</b>	Replace all flexible whips.

## NOTES:

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