

# FRAGMENTATION INSTRUCTION & OPERATION HANDBOOK



# **WARNING!**

## **HIGH PRESSURE UNITS**

**Under no circumstances should the fill stations be operated with the safety relief valves removed and plugged, or adjusted above the factory set range.**

**Tampering with relief valves can result in an “Explosion Failure”**

**High pressure air has Tremendous Kinetic Energy and should be treated with the utmost caution.**

## GENERAL INFORMATION

### JORDAIR SCBA RECHARGING STATIONS

#### J-FFS-D-FULLY ENCLOSED SLIDING DOOR FRONT LOADING MODELS

#### J-FFS-DF FULLY ENCLOSED TILT FRONT LOADING MODELS

#### J-FFS-SR OPEN REAR LOADING TYPES

#### J-FT TOP LOADING FLOOR MOUNTED FILL MODELS

This manual covers the operation of the standard designs of the Jordair SCBA refilling stations. This includes stand-alone containment type recharging stations and wall mounted panels. Some of the custom options, which may be added to the SCBA refill stations, are included in this operation manual. Due to the program of product improvement at Jordair, older models may not include all of the listed features.

## GENERAL TECHNICAL INFORMATION

When the recharging station is delivered with the optional dual filling for 2216 and 4500 PSIG SCBA cylinders the 2216 PSIG SCBA fill assemblies are protected by a safety relief valve set at 2650 PSIG to ensure safe refilling. When a SCUBA fill point is included in a SCBA fill station this is also protected with a safety relief valve. Stations operating with a 6000 PSIG compressor and storage system have a safety valve set at 4750 PSIG to protect 4500 PSIG SCBA cylinders.

## CAUTION!

**Never attempt to repair or tighten leaking fittings while the system is pressurized. Always perform service and repair work on a fully depressurized system.**

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## D SERIES FILL STATIONS



### Jordair QC Program

- ISO 9001:2008 Cert. 97-544
- CSA Cert. No. LR77799
- CRN Pressure Components
- B&PV Licence MA-2007

### System Features:

- Larger gauge panel for all features
- Inlet and outlet 4" gauges
- Safety air shut off valve when door is open
- Third Party Tested
- Front Door Steel Plate
- Operator Protection

### NFPA 1901 CERTIFIED REGULATOR CONTROLLED FILL STATION - SLIDING DOOR

MODEL	NO. OF FILL POINTS	FILL TYPE	FILL PRESSURE	WEIGHT	SIZE (CM) H x D x W
J-FFS-D2-2	2	SCBA	2216/3000 PSIG	650 KG	175 x 86 x 97
J-FFS-D2-4	2	SCBA	4500 PSIG	650 KG	175 x 86 x 97
J-FFS-D3-2	3	SCBA	2216/3000 PSIG	660 KG	175 x 86 x 97
J-FFS-D3-4	3	SCBA	4500 PSIG	660 KG	175 x 86 x 97
J-FFS-D4-2	4	SCBA	2216/3000 PSIG	670 KG	175 x 86 x 97
J-FFS-D4-4	4	SCBA	4500 PSIG	670 KG	175 x 86 x 97
J-FFS-D6-2	6	SCBA	2216/3000 PSIG	700 KG	175 x 86 x 125
J-FFS-D6-4	6	SCBA	4500 PSIG	700 KG	175 x 86 x 125
J-FFS-D8-2	8	SCBA	2216/3000 PSIG	720 KG	175 x 86 x 125
J-FFS-D8-4	8	SCBA	4500 PSIG	720 KG	175 x 86 x 125
J-FFS-D10-2	10	SCBA	2216/3000 PSIG	830 KG	175 x 86 x 125
J-FFS-D10-4	10	SCBA	4500 PSIG	830 KG	175 x 86 x 125
J-FFS-D12-2	12	SCBA	2216/3000 PSIG	850 KG	175 x 86 x 125
J-FFS-D12-4	12	SCBA	4500 PSIG	850 KG	175 x 86 x 125

## DELUXE FRONT LOADING FRAGMENTATION & FILL STATION

### **MODELS: J-FFS-D2 / D3 / D4 / D6**

The deluxe front-loading recharging station is designed for the simultaneous refilling of either 2/3/4 or up to 12 SCBA cylinders. This design of recharging station is supplied as a stand-alone unit and can have an external or internal cascade option. The standard unit is equipped with either 2/3/4 or up to 12 SCBA filling adaptors for the desired pressure requested by the customer. A regulator controls the final filling pressure. The unit can be supplied with 2/3/4 or up to 12 additional SCBA fill hoses to allow both 2216 PSIG and 4500 PSIG recharging. This is an option for the D2/D3/D4 and up to the D12 models. The 2216 PSIG filling is protected by a safety relief valve, which is set at 2650 PSIG. When this station is supplied to operate in conjunction with a 6000 PSIG compressor and storage system, a relief valve set at 4750 PSIG protects the 4500 PSIG recharging system. The SCUBA fill option is also protected by a relief valve.

### STATION OPERATION-2216 / 4500 PSIG FILLING

1. Pressurize the station by opening the fill station shut-off valve. The air supply will be coming directly from the compressor or the storage bank.
2. Verify the system pressure after opening the station inlet shut-off. The pressure will be indicated on the 4" inlet gauge to the regulator.
3. To set the downstream pressure for recharging, turn the control knob on the regulator clockwise until the regulator outlet gauge shows the desired filling pressure (for example 2216 PSIG or 4500 PSIG). The panel mounted SCBA fill valves remain closed. Both pressures have safety valve protection.
4. Slide front door to the right to expose the SCBA holders. Connect the 2216 PSIG or the 4500 PSIG filling adaptor and close the bleeder screw before opening the SCBA cylinder valve. Slide the door to the left until it latches.
5. When dual filling pressures are specified the yellow fill hoses are for the 2216 PSIG filling and the green hoses are used for the 4500 PSIG filling. When filling 4500 psig SCBAs please shut off 2216 PSIG isolation valve, otherwise 2650 PSIG relief valve will start venting.
6. Open the control valve to the cylinder or cylinders being filled. An orifice to prevent the cylinders from filling too quickly and overheating controls the fill rate.
7. When the cylinder has reached the correct filling pressure of 2216 or 4500 PSIG close the individual panel mounted SCBA fill valves, the filling is now complete.
8. Pulling on door latch, slide door to the right. Close SCBA valve. Open the bleeder to bleed the high-pressure air between the fill valve and the SCBA cylinder valve and disconnect the recharging adaptors from the SCBA cylinder.
9. Remove the fill hose assembly from the SCBA cylinder and replace on the holder. Lift the cylinder carefully out of the filling station. The filling process is now completed.

## DF SERIES FILL STATIONS



### Jordair QC Program

- ISO 9001:2008 Cert. 97-544
- CSA Cert. No. LR77799
- CRN Pressure Components
- B&PV Licence MA-2007

### System Features:

- Larger gauge panel for all features
- Inlet and outlet 4" gauges
- Safety air shut off valve when door is open
- Balanced door for ease of opening/closing
- Dual lock system for ultimate safety
- Third Party Tested
- Front Door Steel Plate
- Operator Protection

### NFPA 1901 CERTIFIED REGULATOR CONTROLLED FILL STATION - TILT DOOR

MODEL	NO. OF FILL POINTS	FILL TYPE	FILL PRESSURE	WEIGHT	SIZE (CM) H x D x W
J-FFS-DF2-2	2	SCBA	2216/3000 PSIG	275 KG	142 x 60 x 72
J-FFS-DF2-4	2	SCBA	4500 PSIG	275 KG	142 x 60 x 72
J-FFS-DF3-2	3	SCBA	2216/3000 PSIG	325 KG	142 x 60 x 88
J-FFS-DF3-4	3	SCBA	4500 PSIG	325 KG	142 x 60 x 88
J-FFS-DF4-2	4	SCBA	2216/3000 PSIG	375 KG	142 x 60 x 114
J-FFS-DF4-4	4	SCBA	4500 PSIG	375 KG	142 x 60 x 114

## DELUXE FRONT LOADING FRAGMENTATION & FILL STATION

### **MODELS: J-FFS-DF2 / DF3 / DF4**

The deluxe tilt front-loading recharging station is designed for the simultaneous refilling of 2, 3, or up to 4 SCBA cylinders. This design of recharging station is supplied as a stand-alone unit and can have an external or internal cascade option. The standard unit is equipped with 2, 3, or up to 4 SCBA filling adaptors for the desired pressure requested by the customer. A regulator controls the final filling pressure. The unit can be supplied with 2, 3 or up to 4 additional SCBA fill hoses to allow both 2216 PSIG and 4500 PSIG recharging. This is an option for the DF2, 3 and up to the DF4 models. The 2216 PSIG filling is protected by a safety relief valve, which is set at 2650 PSIG. When this station is supplied to operate in conjunction with a 6000 PSIG compressor and storage system, a relief valve set at 4750 PSIG protects the 4500 PSIG recharging system. The SCUBA fill option is also protected by a relief valve.

### STATION OPERATION-2216 / 4500 PSIG FILLING

1. Pressurize the station by opening the fill station shut-off valve. The air supply will be coming directly from the compressor or the storage bank.
2. Verify the system pressure after opening the station inlet shut-off. The pressure will be indicated on the 4" inlet gauge to the regulator.
3. To set the downstream pressure for recharging, turn the control knob on the regulator clockwise until the regulator outlet gauge shows the desired filling pressure (for example 2216 PSIG or 4500 PSIG). The panel mounted SCBA fill valves remain closed. Both pressures have safety valve protection.
4. Release thumb latch on right side of door and push handle down to open door. Connect the 2216 PSIG or the 4500 PSIG filling adaptor and close the bleeder screw before opening the SCBA cylinder valve. Tilt front door up until it latches & engage thumb lock.
5. When dual filling pressures are specified the yellow fill hoses are for the 2216 PSIG filling and the green hoses are used for the 4500 PSIG filling. When filling 4500 psig SCBAs please shut off 2216 PSIG isolation valve, otherwise 2650 PSIG relief valve will start venting.
6. Open the control valve to the cylinder or cylinders being filled. An orifice to prevent the cylinders from filling too quickly and overheating controls the fill rate.
7. When the cylinder has reached the correct filling pressure of 2216 or 4500 PSIG close the individual panel mounted SCBA fill valves, the filling is now complete.
8. Release thumb latch on right side of door and push handle down to open door. Close SCBA valve. Open the bleeder to bleed the high-pressure air between the fill valve and the SCBA cylinder valve and disconnect the recharging adaptors from the SCBA cylinder.
9. Remove the fill hose assembly from the SCBA cylinder and replace on the holder. Lift the cylinder carefully out of the filing station. The filling process is now completed.

## FT & FTS SERIES FILL STATIONS



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| <p><b>Jordair QC Program</b></p> <ul style="list-style-type: none"> <li>• ISO 9001:2008 Cert. 97-544</li> <li>• CSA Cert. No. LR77799</li> <li>• CRN Pressure Components</li> <li>• B&amp;PV Licence MA-2007</li> </ul> | <p><b>System Features:</b></p> <ul style="list-style-type: none"> <li>• 8" pipe fill protectors</li> <li>• Mobile or floor-mounted</li> <li>• Multiple Filling</li> <li>• Operator Protection</li> </ul> |
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### FRAGMENTATION FILL STATION - FLOOR OR MOBILE SCBA CONTAINERS

MODEL	NO. OF FILL POINTS	FILL TYPE	FILL PRESSURE	WEIGHT	SIZE (CM) H x D x W
J-FT-1	1	SCBA	2216/3000/4500 PSIG	65 KG	102 x 40 x 40
J-FT-2	2	SCBA	2216/3000/4500 PSIG	90 KG	102 x 80 x 40
J-FTS-1	1	SCUBA	3000 PSIG	65 KG	102 x 40 x 40
J-FTS-2	2	SCUBA	3000 PSIG	90 KG	102 x 80 x 40

## FT & FTS FILL STATION

### **MODELS: J-FT-1 / 2, J-FTS-1 / 2**

The standard top loading refilling module can be supplied to incorporate a regulator and can be supplied with the optional cascade valve panel for up to six cascade cylinders. The dual recharging option can also be supplied. The 2216 PSIG system is protected by a safety relief valve, which is set at 2650 psig. When this module is supplied to operate in conjunction with a 6000 PSIG compressor and storage system, a relief valve set at 4750 PSIG protects the 4500 PSIG recharging hoses.

### MODULE OPERATION-2216 / 4500 PSIG FILLING

1. Pressurize the station by opening the fill module shut-off valve located in the optional fill panel. The air supply will be coming directly from the compressor or the storage bank.
2. Verify the system pressure after opening the station inlet shut-off. The pressure will be indicated on the 4" inlet gauge to the regulator.
3. To set the downstream pressure for recharging, turn the control knob on the regulator clockwise until the regulator outlet gauge shows the desired filling pressure (For example 2216 PSIG or 4500 PSIG). The panel mounted SCBA fill valves remain closed.
4. Slide the top plate to the right to expose the SCBA holders. Connect the 2216 PSIG or the 4500 PSIG filling adaptor and close the bleeder screw before opening the SCBA cylinder valve. Slide the plate to the left until it latches and tighten the wing nuts.
5. When dual filling pressures are specified the yellow fill hoses are for the 2216 PSIG filling and the green hoses are used for the 4500 PSIG filling. When filling 4500 psig SCBAs please shut off 2216 PSIG isolation valve, otherwise 2650 PSIG relief valve will start venting.
6. Open the control valve to the cylinder or cylinders being filled. An orifice to prevent the cylinders from filling too quickly and overheating controls the fill rate.
7. When the cylinder has reached the correct filling pressure of 2216 or 4500 PSIG close the individual panel mounted SCBA fill valves, the filling is now complete.
8. Open the wing nut and slide the cap to the right. Close SCBA valve. Open the bleeder to bleed the high-pressure air between the fill valve and the SCBA cylinder valve and disconnect the recharging adaptors from the SCBA cylinder.
9. Remove the fill hose assembly from the SCBA cylinder and replace on the holder. Lift the cylinder carefully out of the filling station. The filling process is now completed.

**FOOTNOTE:** For filling Stations supplied with cascading valves for the air storage system, please follow the following cascading procedure:

Open cascading valve on bank #1 and start filling SCBAs. When the pressure equalizes below desired fill pressure: close valve on bank #1 and open valve on bank #2 to top off SCBAs. When next set of SCBAs are loaded for filling, fill as much as possible from bank #1 and top off with bank #2. Keep repeating this process until bank #2 pressure drops below desired filling pressure. Now, first fill from bank #1 as much as possible, then from bank #2 as much as possible and then top off from bank #3. Keep repeating this process until bank #3 pressure drops to SCBA filling pressure.

In this procedure at the end of the filling process bank #1 will be well depleted, bank #2 will be fairly depleted and bank #3 will be at SCBA fill pressure. This way maximum volume of air is used from the storage system to fill extra SCBAs.

To refill air storage system open all banks and the compressor will refill the storage cylinders.