

Air Brake Compressors 7920 / 7921

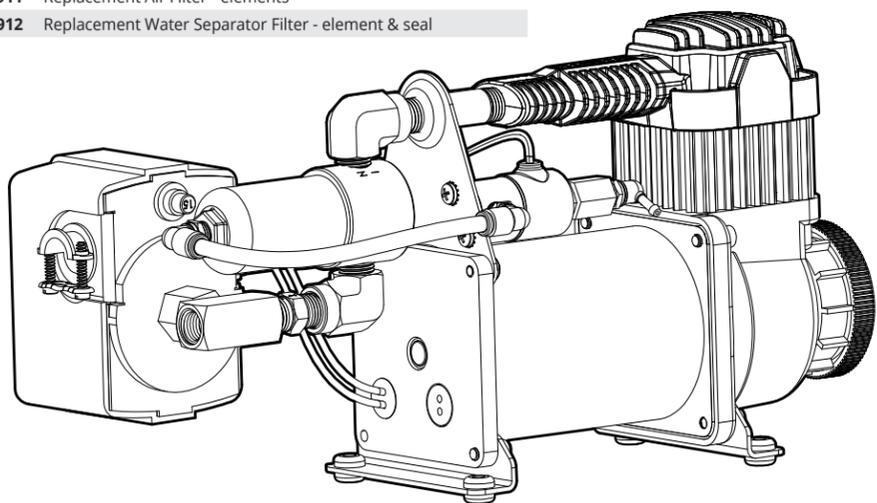
Automatically maintains air brake system at ready status.

- Designed for emergency vehicle use
- Automatically turns ON at 95 PSI and OFF at 125 PSI
- Industrial grade compressor provides reliable, long term operation
- Easy installation, no mounting plate required
- Integrated vibration damping mounts
- Serviceable air filter and water separator filter
- Works in conjunction with engine driven compressor
- Integrated auto drain to protect your air system

Specifications

Nominal Voltage	12V DC
Motor Type	Permanent Magnet
Factory ON-OFF PSI Threshold	ON: 95 PSI, OFF: 125 PSI
Maximum Amp Draw	11A
Operating Temperature Range	4.4°C to 65°C (40°F to 150°F)
Air Outlet	Female 1/4" NPT
Flow Rate	.88 CFM @ 0 PSI

PN	Description
7920	Horizontal Mount Air Brake Compressor
7921	Vertical Mount Air Brake Compressor
7910	Air Filter Assembly - complete
7911	Replacement Air Filter - elements
7912	Replacement Water Separator Filter - element & seal

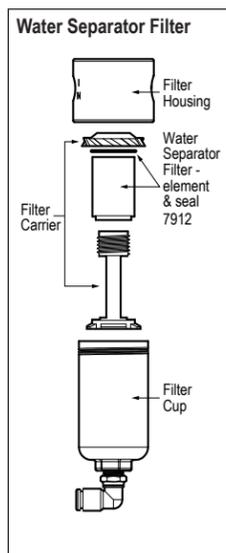
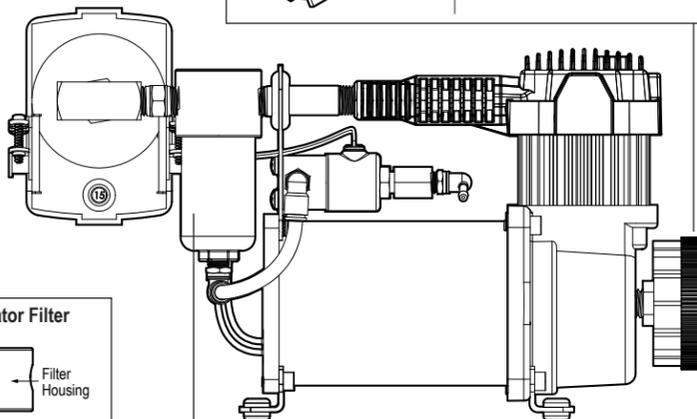
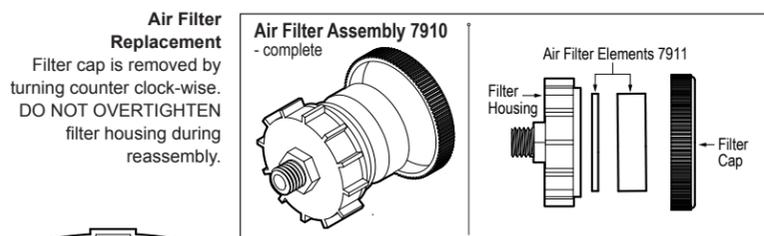


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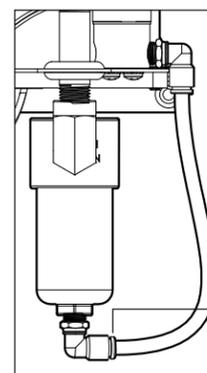
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Servicing

NOTE: Before performing any servicing of the air compressor or compressed air system, assure that all electrical power is removed from the system and that the system pressure is at 0 PSI. Procedures apply to both 7920 and 7921 compressor models.



Water Separator Filter Replacement
Filter cup is removed by turning counter clock-wise. Once removed, unscrew filter carrier, remove filter element, and replace. Inspect seal in upper housing and replace if crimped or damaged. DO NOT OVERTIGHTEN filter cap during reassembly. Once the housing seats against the seal, tighten maximum of 1/2 turn further.



Moisture Drain Hose Replacement
Remove hose by pressing in on this ring. Then push hose into the fitting, and while holding ring depressed, pull hose out. Reinstall hose by placing it into the fitting. Push until it seats, then pull to confirm that it has sealed.

General Information and Warnings

WARNING

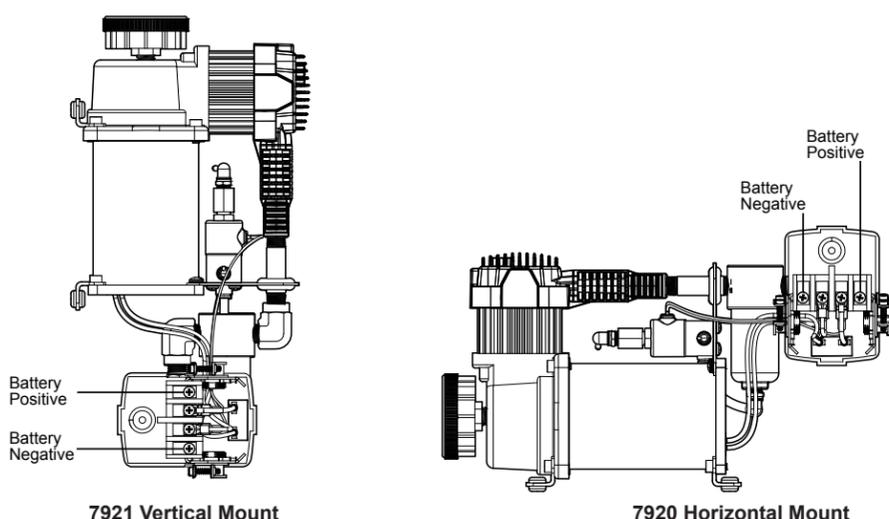
- Compressor is moisture and splash resistant but not waterproof. Do not mount in locations where it is likely to come in contact with water.
- Do not mount near flammable liquids.
- Compressor should be mounted in a location that allows for cooling. At 72° F (22° C), the compressor is rated for continuous duty up to 100 PSI (6.89 Bar). This compressor is designed for horizontal (PN 7920) or vertical (PN 7921) mounting only. The filter/separator must be within 15 degrees of vertical (horizontal) in order for the auto drain system to operate properly. The compressor is designed for use in a nominal 12V DC vehicle system. The compressor should be located as close to the battery source as is practical. Visit blueseasystems.com for more information.
- Wiring should be sized to minimize voltage drop. The unit includes a 15A thermal type circuit breaker. Assure that supply wiring can safely handle up to 15A. Wire sizing chart shown below. For additional options download the Circuit Wizard app or go to circuitwizard.blueseasystems.com

Length of wire from battery to compressor *

5 ft	10 ft	15 ft	20 ft
14 AWG	12 AWG	10 AWG	10 AWG

* The length outlined is the total length of the conductor: combination of positive and negative wires to complete the circuit.

Wiring Diagrams



7921 Vertical Mount

7920 Horizontal Mount

Connections

Wiring

Use appropriate crimp-style terminals when stranded wire is employed.

Automatic moisture drain hose

Attach the 1/8" interior diameter (ID) drain hose to the barbed fitting on the auto drain solenoid valve and route the hose to an appropriate location at a level below the drain valve.

Air outlet

The air outlet is a standard 1/4" NPT female fitting. Use an appropriately rated, flexible supply hose to minimize vibration transfer to the external lines.

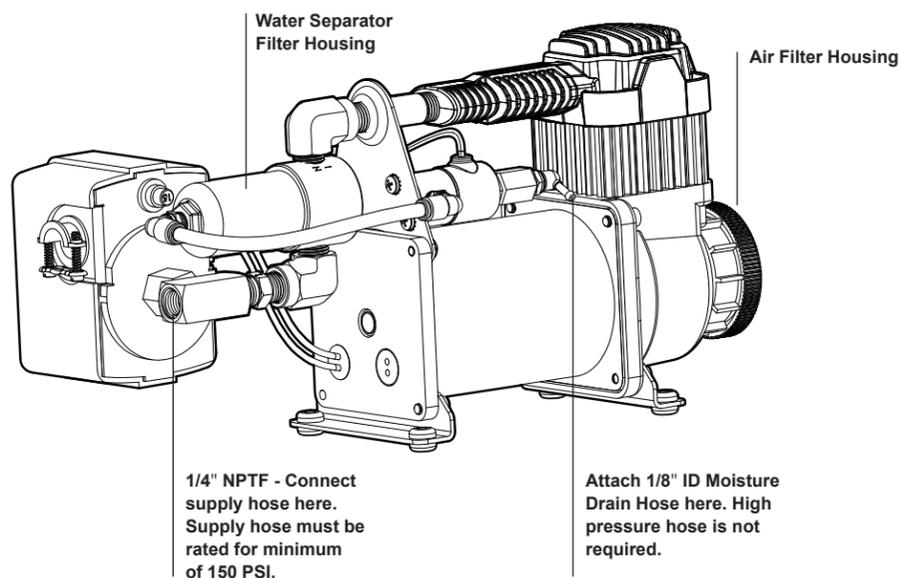
Air inlet

The compressor comes with an all metal air filter housing with filter elements pre-installed. For replacement filter elements use Blue Sea Systems PN 7911.

Replacing the Water Separator Filter

Remove the 1/4" high pressure hose from the quick disconnect located on the bottom of the separator bowl. This is accomplished by pressing the collar at the base of the fitting inward and, while holding the collar depressed, gently push the hose inward slightly, then pull it out of the fitting. After removing the hose, unscrew and remove the filter bowl from the separator housing. The exposed filter cartridge may now be unscrewed and replaced with the filter from PN 7912 available from Blue Sea Systems. Clean the bowl and replace seal if required. A replacement seal ships with PN 7912.

DO NOT overtighten the filter bowl when replacing. Thread it onto the housing until it contacts the seal, then approximately 1/2 turn further. Reattach the high pressure hose by placing it into the quick release connector and pushing until it seats into place. Fix the hose in position by gently pulling on it.



Mounting Dimensions

NOTE:

1. The perimeter of this pattern shows the minimum footprint necessary for mounting.
Consideration must be given for maintenance access, wire bend radii, intake air clearance and cooling.
2. If printing a paper template at 1:1 scale, double check dimensions of the template before using it to drill or cut material.
3. Compressor Height: Approximately 7.5 inches for both models.

