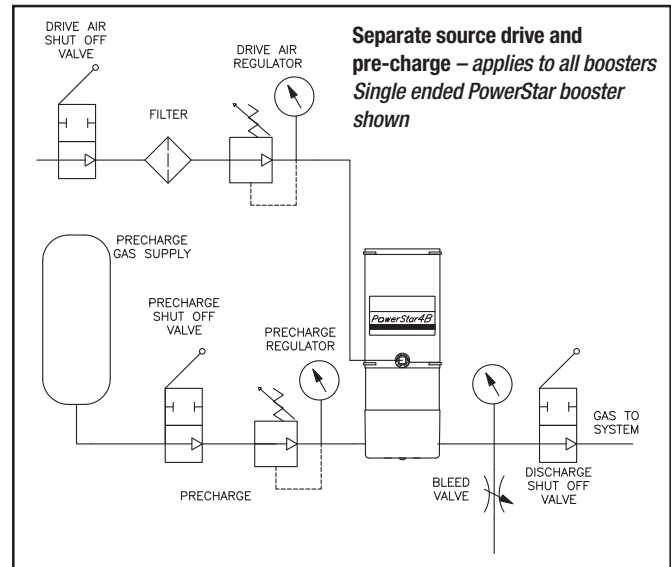
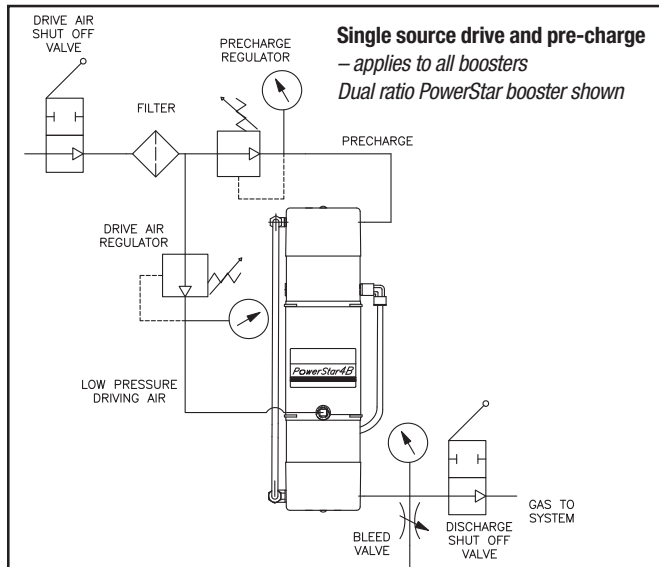


Quick Start Up Guide – Boosters

Installation:

The Sprague Products gas boosters, with or without accessories, require the following plumbing connection lines:

- 1) From driving air source to booster air inlet.
10m filtration
- 2) From a pre-charge gas source to the booster pre-charge inlet. 40m filtration
- 3) From the booster outlet port to the working system.



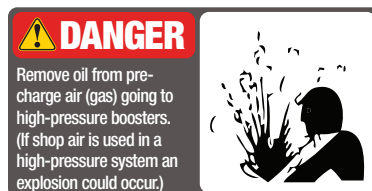
Operation:

Start Up Procedure:

- 1) Adjust drive air regulator to zero.
- 2) Close outlet bleed valve.
- 3) Slowly open pre-charge shut-off valve (or drive air supply valve if single source).
- 4) Adjust pre-charge pressure regulator to desired pre-charge pressure.
- 5) Lock pre-charge pressure regulator.
- 6) Open drive air shut-off valve if not already open.
- 7) Slowly adjust drive air pressure regulator until booster starts operating.
- 8) Check all connections for leaks.
- 9) Continue increasing drive air pressure until desired output pressure is reached.

Shut Down Procedure:

- 1) Close drive air shut-off valve.
- 2) Close pre-charge shut-off valve.
- 3) Open outlet bleed valve. For safety leave open.
- 4) Disconnect from work.



Trouble Shooting Guide

Problem	Cause	Remedy
Booster is not delivering Gas (booster running)	<ul style="list-style-type: none"> A. Pre-charge gas to booster not connected or line is blocked. B. Outlet check clogged or faulty. C. Leakage in high pressure system. 	<ul style="list-style-type: none"> A. Connect pre-charge gas line to booster. Remove and clean line. B. Check O-ring & seat. C. Repair or replace.
Booster fails to generate flow or pressure	<ul style="list-style-type: none"> A. Leakage or blockage at inlet or outlet check valves. O-Ring blown off poppet. B. Pre-charge pressure too low. C. Drive piston seal worn. D. Connecting rod shift nut not adjusted properly. 	<ul style="list-style-type: none"> A. Remove & clean check valves. Look for foreign matter lodged in seating areas. Replace poppet O-ring. B. Replace source if necessary, or turn on supply. Insufficient supply gas filtration is a leading cause of seal and check valve failure. C. Replace piston seal if necessary. D. Adjust shift nut as required.
Booster is not delivering Gas (booster not running)	<ul style="list-style-type: none"> A. Air valve sticking detent spring damaged. B. Air valve sticking – shuttle is worn. C. Connecting rod shift nut not adjusted properly. D. Shift spring broken. E. Confirm adequate pre-charge pressure – refer to manual. F. Driving air supply disconnected air shut off valve closed or air filter clogged. G. Air pressure regulator not adjusted. H. Air directional valve sticking (PowerStar 4 Booster). J. Air Pilot valve damaged or sticking (PowerStar 4 Booster). 	<ul style="list-style-type: none"> A. Examine detent spring for damage. Replace if needed. B. If shuttle is worn, it must be replaced. Excessive wear can be seen if the plating has been worn away from the air valve shuttle. C. Readjust per booster assy. Check manual on our website. D. Replace if needed. E. Adjust pre-charge regulator or acquire additional pre-charge. F. Reconnect line. Open valve. Clean air filter. G. Adjust regulator. H. Replace valve. J. Remove and clean or replace as needed.
Booster running rapidly gas flow is reduced (PowerStar 4 Gas booster)	<ul style="list-style-type: none"> A. Air pilot valves damaged or sticking. B. Air pilot valve O-ring damaged. C. Air pilot valve springs broken. D. Air directional valve interface. Seals damaged or missing. E. End plate air seals damaged or missing. 	<ul style="list-style-type: none"> A. Remove and clean or replace. B. Replace. C. Replace. D. Replace. E. Replace.
Gas Leaking	<ul style="list-style-type: none"> A. Damaged high pressure seals. 	<ul style="list-style-type: none"> A. Replace.



High Pressure Equipment
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