

Additel 917/918

Pneumatic Pressure Test Pump User's Manual

[Version number:1409V03]

Warnings and cautions

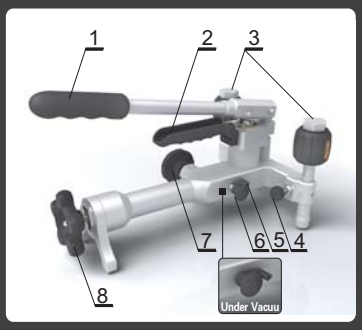
- Low pressure gauges can very easily be over pressured if not careful.
  Please take caution when applying pressures.
- Do not exceed the safety limit of 1500 psi (100 bar) for 917 or 2000 psi (140 bar) for 918.
- Do not switch between pressure and vacuum mode under pressure. Open the vent valve and isolation valve before switching between positive to vacuum pressures.
- Over tightening connectors may cause damage. Light hand tightening is sufficient.
- Store the pump in a dry non–corrosive environment.
- Additel is not responsible for problems or damage resulting from improper use or operation of the equipment.
- All moisture and contaminants should be cleaned out of the liquid isolator before creating a vacuum. This is accomplished by venting the pump when at high pressure.
- For the least risk in contamination of the reference gauge, the DUT should be installed to the pressure port which is closest to the vent valve.

Specification

- **Pressure range:** 917: 95% vacuum to 1000 psi (70 bar)
  918: 95% vacuum to 1500 psi (100 bar)
- **Temperature:** (0~50) ℃
- **Humidity:** < 85%RH
- **Adjustment resolution:** 10 Pa (0.1 mbar)
- **Maximum pressure:** 917: 1500 psi (100 bar)
  918: 2000 psi (140 bar)
- **Pressure media:** Air
- **Size:** Height: 5.5" (140 mm);
  Base: 12.4" (315 mm) x 7.8" (198 mm)
- **Weight:** 5.7 lb (2.6 kg)

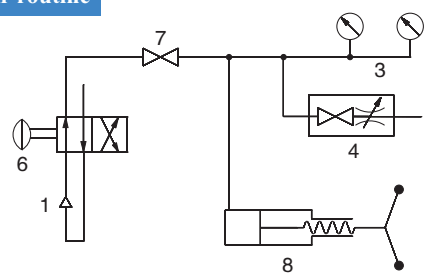
Remark: *If local atmosphere pressure is 1 bar, the vacuum can reach to -0.95 bar; If local atmosphere pressure is P, the vacuum can reach to - 0.95P.*

Configuration & Air routine



1 – Hand pump
2 – Transport handle
3 – Quick connector
4 – Vent valve
(clockwise to close/ counterclockwise to open)
5 – P/V selector lock
6 – Pressure/vacuum (P/V) selector
(Positive pressure: pull it out; vacuum: push it in
⚠ DO NOT switch under pressure or vacuum to avoid damage)
7 – Isolation valve (Bypass valve)
(Isolated the calibration volume from the hand pump, piston, and check valve)
8 – Fine adjust handle
(clockwise to increase pressure)

Air routine



Troubleshooting

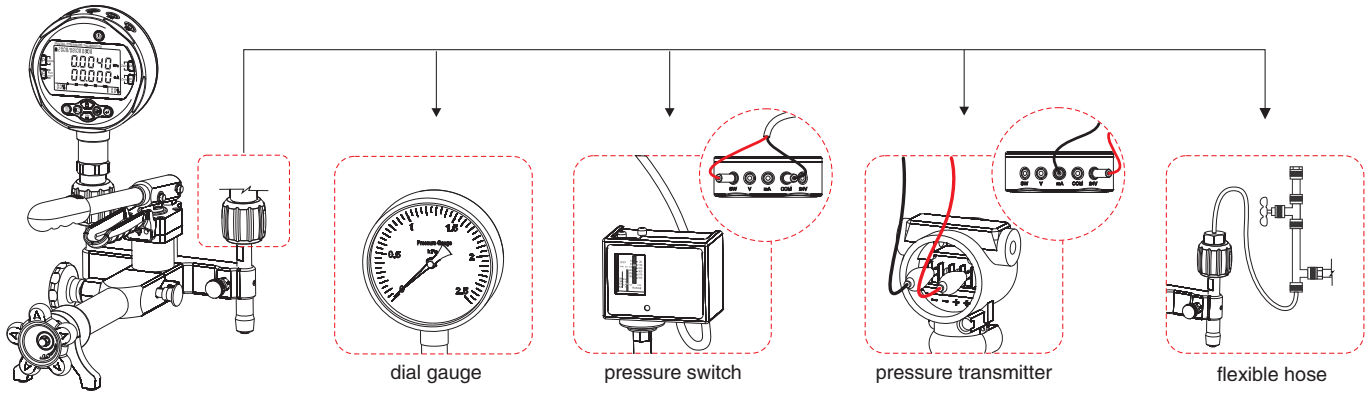
Problem	Cause	Solution
Hand pump will not generate pressure	The isolation valve is not open.	Open the isolation valve.
It is difficult to increase pressure	A. Vent valve is not closed.	Close the vent valve.
	B. The O–ring seal is loose or damaged.	Replace O–ring seal.
	C. P/V selector is in the wrong position.	Pressure: pull the P/V selector out; Vacuum: push the P/V selector in.
Hard to use the fine adjust	A. The isolation valve is not closed.	Close the isolation valve.
	B. The gauges are not tightened.	Tighten the reference gauge or the gauge under test.
	C. The O–ring seal is damaged.	Replace the O–ring seal.
	D. The thread surface is not smooth.	Use Teflon tape on the thread and turn it in tight
	E. The connector type mismatched to the gauge pressure port.	Use the correct adapter.
	F. Dust or contaminants are blocking the pressure flow	Pressurize the pump several times and then suddenly vent which will push any contaminants out.
It is difficult to turn the quick connector	A. Too much force was previously applied.	Secure the quick connect valves with less force.
	B. The threads have no lubrication.	Apply lubrication to the threads.

O–Rings for pressure connector

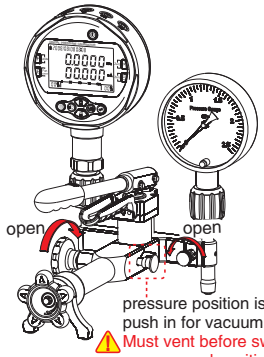
P/N	Size	Connector
1611300004	4X1.5	M10X1, 1/8BSP, 1/8NPT
1611300220	6.5X3	M20X1.5, 1/2BSP, 1/2NPT
1611300024	6X2	M14X1.5, 1/4BSP, 1/4NPT, 3/8BSP

Basic Operation

Connection A

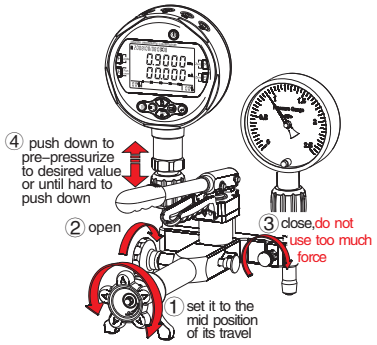


Vent B

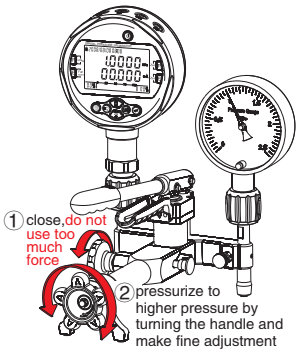


Zeroing should be operated under this condition only.

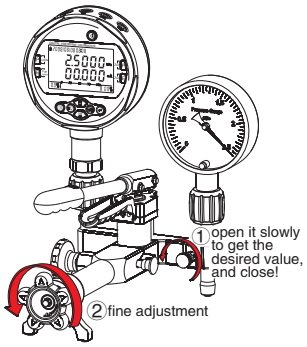
Pre-pressure C



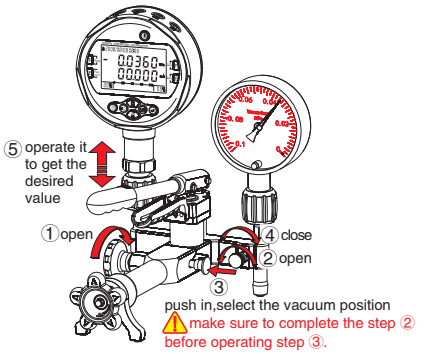
Pressurizing process and fine adjustment D



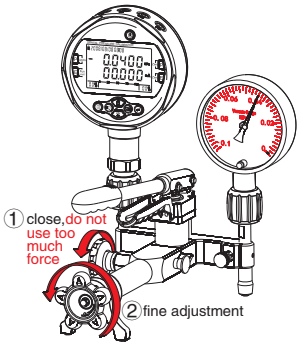
Decrease pressure process E



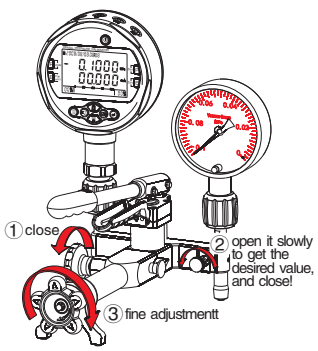
Vacuum process F



Vacuum and fine adjustment G



Decrease vacuum process H



Remarks:

A: Additel has made a concerted effort to provide complete and current information for the proper use of this equipment. The product specifications and other information contained in this manual are subject to change without notice.

B: Above pictures are just for reference.