

ADT927

Hydraulic Pressure Test Pump User's Manual

[Version number:1505V13]

Please download the latest version from www.additel.com

Warnings and cautions

- Operate the pump in the rated pressure range and do not exceed the safety pressure of 15,000 psi (1,000 bar)
- Close the valves and tighten the ports when transporting the pump.
- Always open the reservoir release valve during operation.
- Do not over tighten the connectors or handles to avoid any damage.
- Change contaminated media immediately.
- Do not let the media level get below the mid line of the reservoir when the pump is place horizontal.
- Keep the outer threads clean.
- Additel is not liable for any safety problems or damages caused by misuse or incorrect operation.

Specification

- **Pressure range:** 12.5 psi (0.85 bar) vacuum to 10,000 psi (700 bar) positive pressure

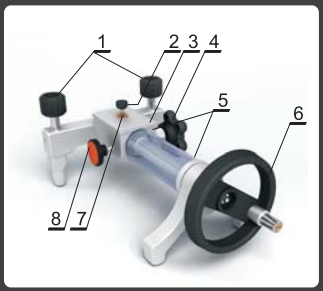
  Remark: *If local atmosphere pressure is 1 bar, the vacuum can reach to 0.85 bar; If local atmosphere pressure is P, the vacuum can reach to (P × 85%) bar.*

- **Temperature:** (0~50) ℃
- **Humidity:** < 95%RH
- **Adjustment resolution:** 0.015 psi (0.001 bar)
- **Safety pressure:** < 15,000 psi (1000 bar)
- **Pressure media:** Oil or deionized water

  To reach the best performance, oil is recommended. Recommended oil: Mineral oil SO-VG22 or compatible oil.

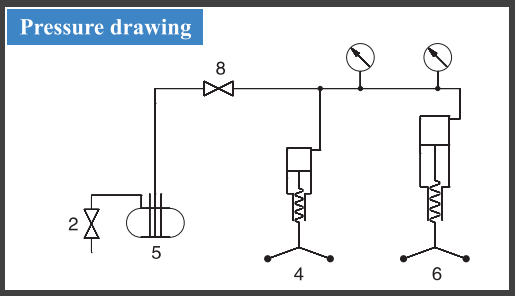
- **Size:** Height: 5.31" (135 mm); Base: 11.42" (290 mm) x 7.80" (198 mm)
- **Weight:** 7.1 lb (3.2 kg) (excluding the media)

Configuration & Pressure drawing



1 – **Quick connector**
2 – **Reservoir release valve** (open it to connect with atmosphere)
3 – **Upper cover of reservoir**
4 – **High–pressure pressurization and fine pressure adjustment handle** (clockwise to increase pressure)
5 – **Liquid reservoir** (inner is pressure media)
6 – **Pre–pressurization handle** (clockwise to increase pressure)
7 – **Screw of fitting cover**
8 – **Vent valve** (Open to connect with atmosphere)

Pressure drawing



Troubleshooting

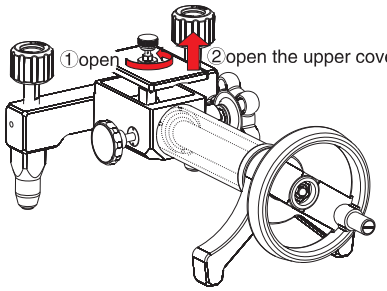
Problem	Cause	Solution
Difficult to increase pressure with pre–pressurization handle	A. Vent valve is not closed.	Close the vent valve.
	B. The O–ring seal is loose or damaged.	Replace the O–ring
	C. Not enough media is in the reservoir.	Fill with more fluid. Make sure fluid level is high enough after the gas purging process.
	D. The pump is not horizontal.	Place the pump horizontally to prepare for pressure or vacuum.
Hard to fine adjust	A. The vent valve is not closed.	Close the vent valve.
	B. The gauges are not connected tight.	Tighten the gauges.
	C. The sealing ring is aged or frayed.	Replace sealing ring.
	D. The thread surface is not smooth.	Use Teflon tape on the thread and turn it in tight.
	E. The connector type is mismatched to the gauge pressure port.	Use the correct adapter.
it is difficult to turn valves or quick connectors	A. Too much force was previously applied.	Do not over tighten.
	B. The pre–pressurization handle may not adjust easily under high pressure.	Adjust pressure by using fine adjustment handle. (Pressure may need to be decreased with the fine adjustment handle before the pre–pressure handle can be used).
	C. The threads have no lubrication.	Lubricate the thread.

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

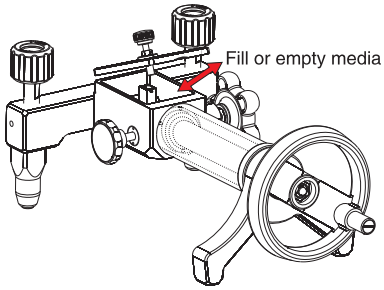
Preparation

Open the reservoir A



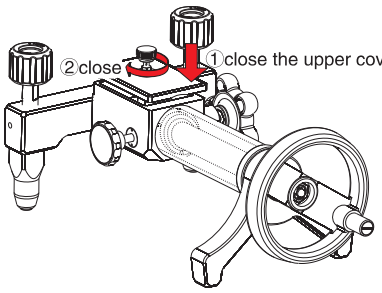
The media level should be 2/3 the height of the reservoir.

Filling/emptying the reservoir B



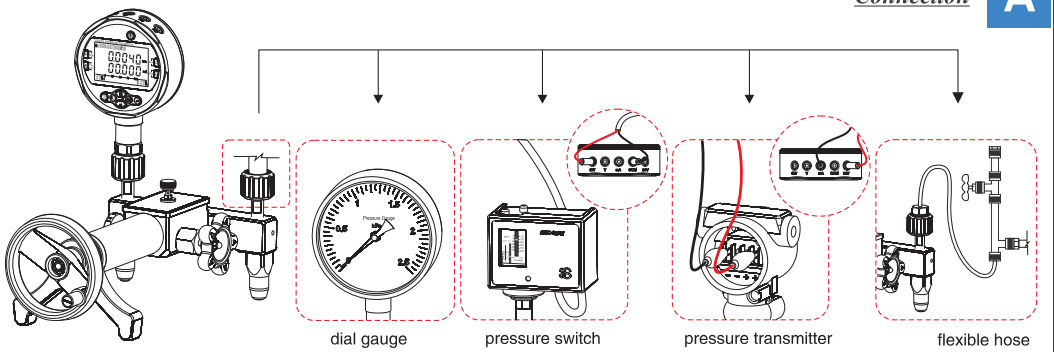
Clean any impurities from the media and reservoir.

Lock the reservoir C

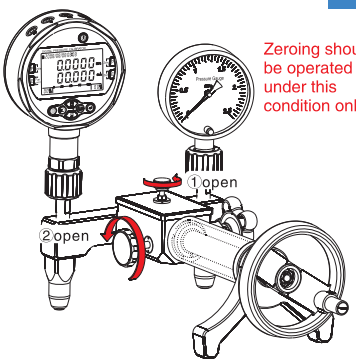


Basic Operation

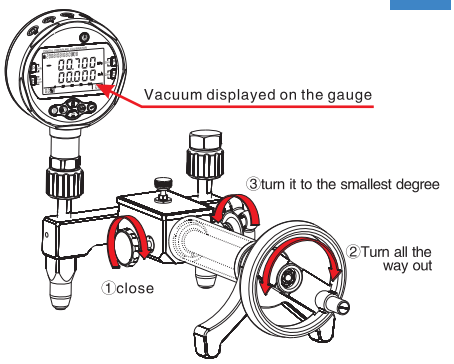
Connection A



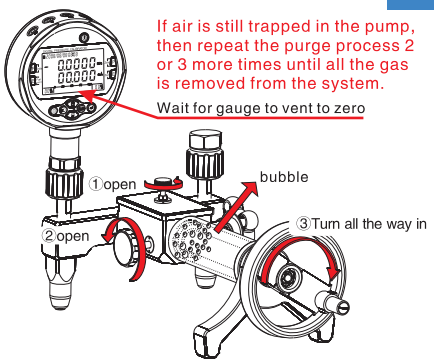
Vent B



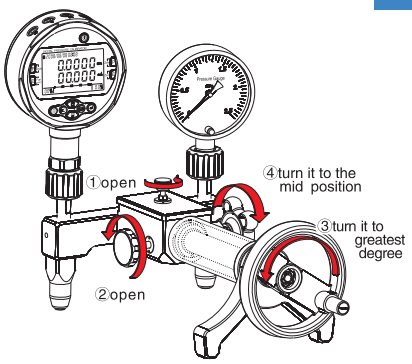
Purge process C



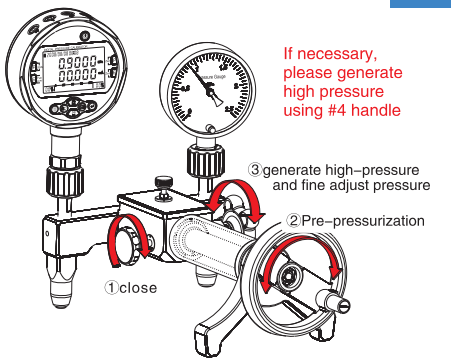
Purge process (cont.) D



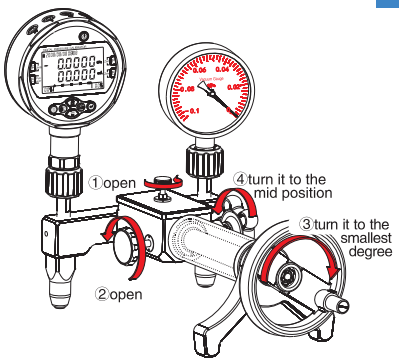
Pre-pressure E



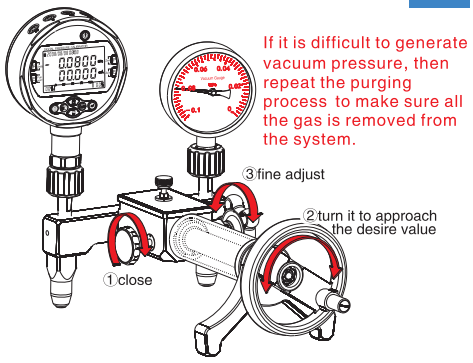
Pressurizing process F



Vacuum preparation G



Vacuum process H



Remark:

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

B: Above pictures are just for reference.