



Warnings and cautions

- > Operate the pump in the rated pressure range (15,000 psi), DO NOT over the safety pressure (18,000 psi).
- > Close all valves and handles of the pump, and tighten the plugs on the finger-tight connectors during transportation.
- > Always keep the reservoir cover vent valve (#4) open during operation.
- > Do not over tighten the valves, connectors and handles to avoid any damage.
- > Change media immediately if it is contaminated.
- > Keep media level between 1/4 and 3/4 of the liquid reservoir filled.
- > Keep the threads clean and lubricious, and remove any dirt on threads.
- > Used by Trained Personnel only.
- > Any security problems or damages caused by incorrect operations are beyond Additel's responsibility.

Specification

- > **Pressure range:** 12.5 psi (0.85 bar) vacuum to 15,000 psi (1000 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:** (5 ~ 50) °C
- > **Adjusting fineness:** 0.015 psi (1 mbar)
- > **Safety pressure:** <18,000 ps i
- > **Pressure media:**
 - ADT936: Diethylhexyl Sebacate
 - ADT938: Deionized water
- > **Size:** Height: 10.43" (265 mm)
Base: 20.71" (526 mm) x 9.65" (245 mm)
- > **Weight:** 35.5 lb (16 kg)

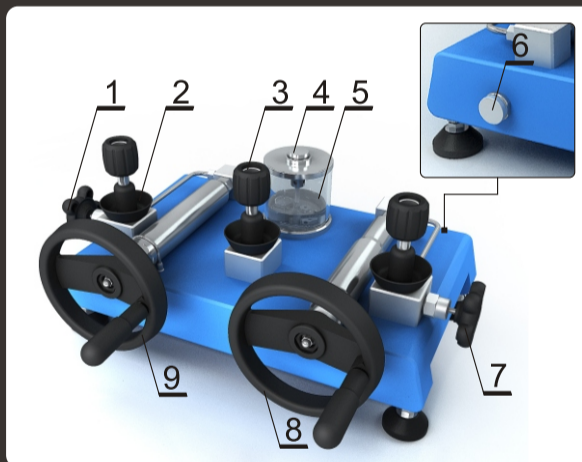
ADT936/ADT938

Hydraulic High Pressure Test Pump User's Manual

[Version number:1111V10]

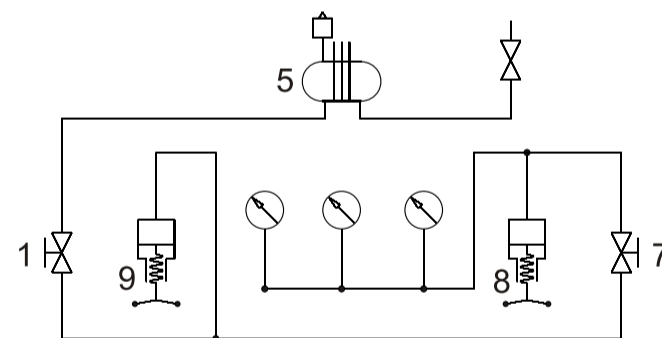


Views and Hydraulic Schematic



- 1- Reservoir shut off valve
- 2- Over-overflow reservoir
- 3- 1/4 NPT connector (or customized female connector)
- 4- Reservoir cover vent valve
- 5- Reservoir
- 6- Liquid drain valve
- 7- Pre-pressurization shut off valve
- 8- High-pressure Pressurization and fine pressure adjustment handle
- 9- Pre-pressurization handle

Hydraulic Schematic



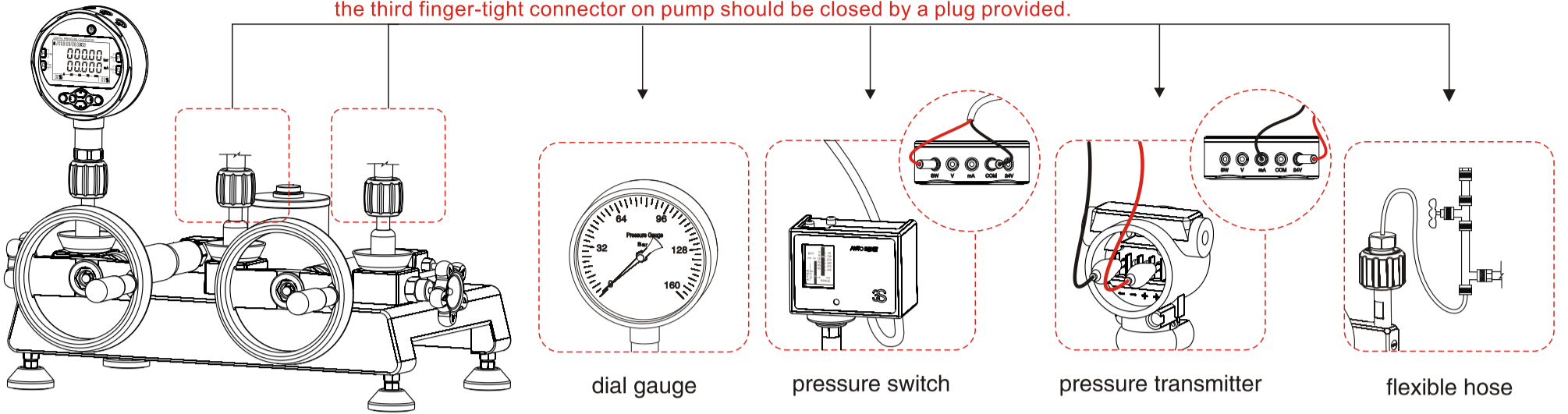
Troubleshooting

Problems	Causes	Solutions
Hard to pressurize through turning Pre-pressurization handle (#9)	Reservoir shut off valve (#1) is not closed	Close shut off valve (#1)
	The O-ring in finger-tight connector is missing, misplaced, or broken	Replace a new O-ring
	Pre-pressurization shut off valve (#7) is closed	Open pre-pressurization shut off valve (#7)
	The media is not enough	Fill more media, and keep media level between 1/4 and 3/4 of the liquid reservoir filled
	Too much air in the pump	Turn the handle anticlockwise to vacuum the pump, open reservoir shut off valve (#1) to have air released
Hard to pressurize through turning high-pressure pressurization handle (#8)	The pre-pressurization shut off valve (#7) is not closed completely	Close pre-pressurization shut off valve (#7)
	Reference gauge or devices under test (DUTs) are not connected tightly	Check finger-tight connectors, re-tight if necessary
	The O-ring in finger-tight connector is missing, misplaced, or broken	Replace a new O-ring
	The end surface of the DUT connection thread is not smooth	Use a PTFE washer in finger-tight connector
	The connector of the DUT is not matched to finger-tight connector	Use proper adapter
Hard to reach high vacuum	Too much air in the pump	Close pre-pressurization shut off valve (#7), open reservoir shut off valve (#1), turn pre-pressurization handle (#8) clockwise fully, close reservoir shut off valve (#1), and then open pre-pressurization shut off valve (#7)
	#4 valve is not open	Open the #4 valve
Hard to pressurize large-cavity DUT	Large-cavity of DUT, and pressurize the system too slow	Step 1: Turn pre-pressurization handle (#9) clockwise fully, close pre-pressurization shut off valve (#7), open reservoir shut off valve (#1). Step 2: Turn pre-pressurization handle (#9) anticlockwise fully, close reservoir shut off valve (#1). Step 3: Open pre-pressurization shut off valve (#7), pressurize the system. Step 4: Repeat step 1 to 3.
Pressure gauges do not reach to zero	#4 valve is not open	Open the #4 valve
Hard to turn the valves or handles	Too tight in last operation	Do not close shut off valves and handles too tightly
	Hard to turn pre-pressurization handle (#9) at high pressure	It is normal. Please use high-pressure pressurization handle to increase/reduce the pressure.
	Lack of lubrication on threads	Lubricate the threads

Connection

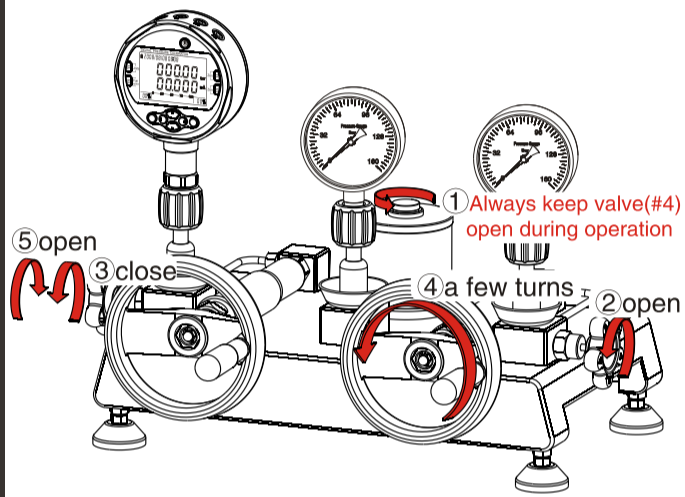
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Note: Gauge positions are exchangeable. If only one device under test (DUT) is connected, the third finger-tight connector on pump should be closed by a plug provided.



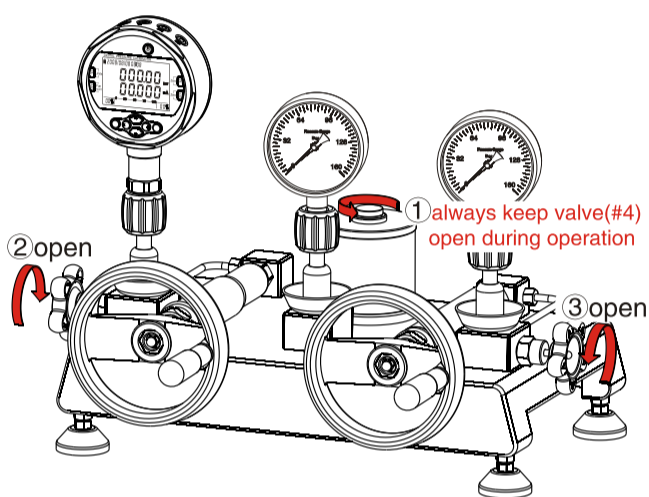
Degas

B



Zeroing

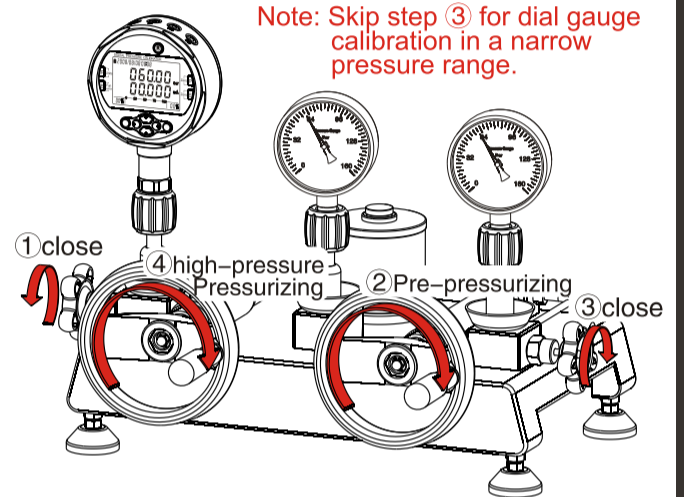
C



Pressurizing procedure

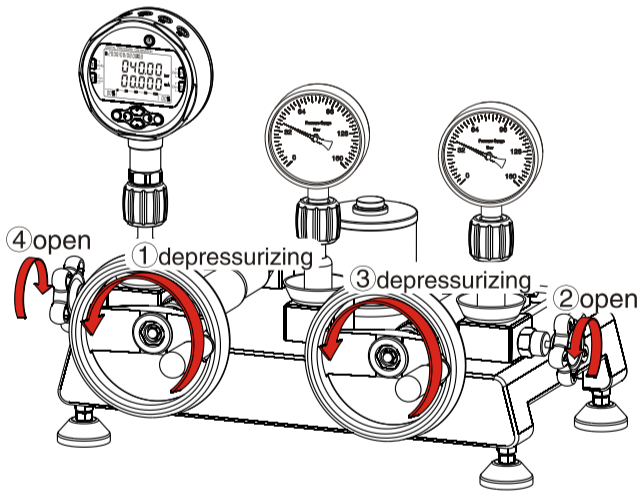
D

Note: Skip step ③ for dial gauge calibration in a narrow pressure range.



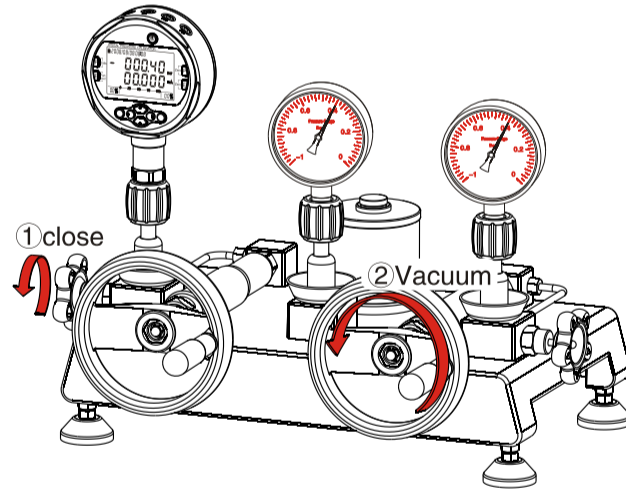
Depressurizing procedure

E



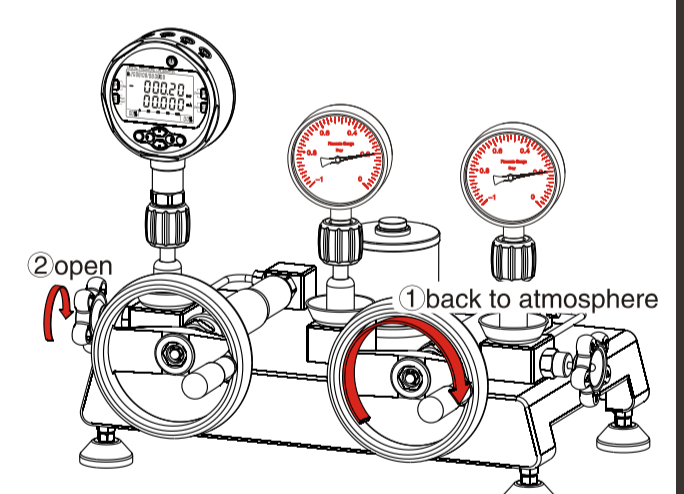
Vacuum procedure

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Back to atmosphere

G

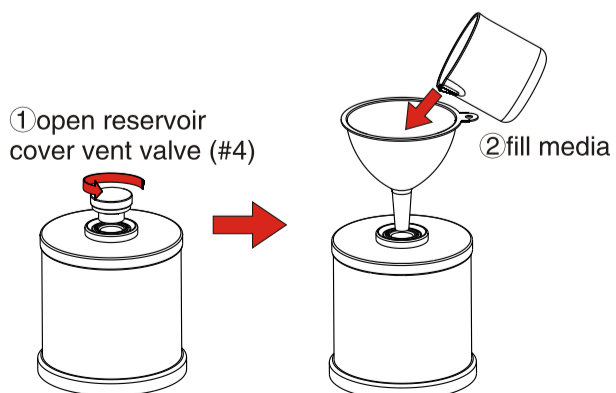


Maintenance

Fill media

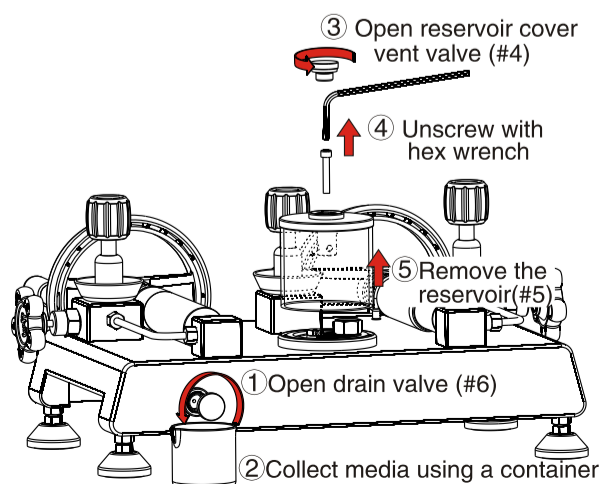
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Note: Please degas after filling media liquid, in case hard to generate pressure.



Drain and Clean

B



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.