



ADT997 Handheld Hydraulic Pressure Pump

Quick Start Guide



[Version No.: 2503V01]

- > When using the pressurization handle to apply pressure to a DUT with a low pressure range and small internal volume, pressurize slowly to help avoid overpressure and potential damage to the DUT.
- > The hydraulic pump must be operated within its rated pressure range. Exceeding the maximum safety pressure may cause equipment damage or personal injury.
- > When the pump is transported or carried, the quick connector must be capped with a plug, the reservoir release valve must be closed, the pressurization handle must be placed in the lowest position, and the high pressure/fine adjustment handle must be screwed in.
- > When in use, the reservoir release valve should always be open and vented.
- > Vent the system before unlocking or rotating the quick connector.
- > Do not over tighten the handwheels, connectors or handles to avoid damage.
- > If the medium is contaminated, replace it.
- > During operation, the liquid level of the medium must not be lower than the lowest level line of the reservoir;
- > The thread surface should be kept clean and lubricated. If there are any contaminants, please properly clean them.
- > Additel is not responsible for personal injuries or damage to the instrument resulting from improper use or operation of the equipment.

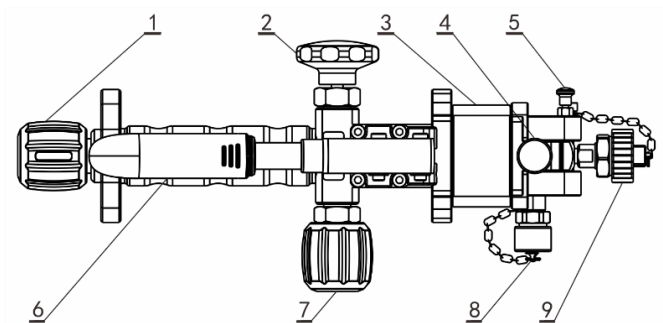
Technical Specification

Items	Specifications
Pressure range	0 to 10,000 psi (700 bar)
Operating temperature	(-10~50) °C
Storage temperature	(-15~55) °C
Humidity range	<85%
Adjustment resolution	0.1kPa
Safety pressure	<13,000 psi (900 bar)
Medium	Mineral oil compatible with copper, 304SS, UPVC and NBR
Dimensions	15.2" (385mm) x 6.5" (166mm) x 5" (128mm)
Weight	4.19 lb (1.9 kg)

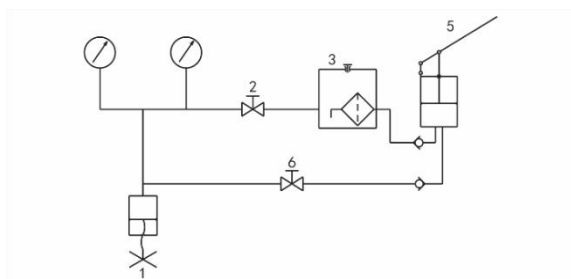
Phenomenon	Reason	Solution
Difficulty in pressing or lifting the handle	Isolation valve is not opened	Open the isolation valve when pressurizing or vacuumizing with the handle
After stopping pressurization using the handle, the pressure changes quickly	1. The vent valve is not closed	The vent valve should be closed when pressurizing or vacuumizing with the handle
	2. The O-ring in the quick connector falls off	Reinstall or replace the O-ring with a new one
	3. Incorrect position of pressure/vacuum selector	Adjust the pressure/vacuum selector to the correct position; Pull it all out for pressurization, push it all in when vacuuming
Difficulty in fine adjusting	1. The isolation valve is not closed during fine adjust	When fine adjusting the output pressure, the isolation valve should be closed
	2. The DUT or reference gauge is not tightened	Tighten the DUT or the reference gauge
	3. The O-ring in the quick connector is worn out or aged	Replace the O-ring with new one
	4. The end surface of the thread of the DUT is uneven	Reinstall or replace the O-ring with a new one
	5. The threads of the DUT do not match	Use adapter
	6. Possible contaminant sucked into the pipelines, preventing the valve from closing	Do multiple pressurization and rapid pressure relief, so that the gas in the pump can flow out quickly and contaminants in the pump can be brought out
Overtightening of rotating parts	1. Too much torque was previously applied.	Do not apply excessive force when closing the Isolation valve and vent

		valve
	2. The tightness of the rotatable parts of the new pump might be slightly different	It is normal, needs long term use
	3. The threads have no lubrication	Apply appropriate amount of grease to the threaded part after long-term use

Basic Structure & Pipeline Diagram



Basic structure



Pipeline diagram

No.	Name	Description
1	High pressure/ fine adjust handle	High pressure and fine adjustment
2	Vent valve	Clockwise close/Counter-Clockwise open
3	Reservoir	Medium storage
4	Reservoir release valve	During transportation: Rotate to the end to keep it closed; During use: Rotate out 3 to 4 turns to keep it vented; During liquid refill: Screw out completely to fill with liquid
5	Locating pin	Pull out to unlock, lock when reset
6	Pressurization handle	Pressurize
7	Isolation valve	Isolate the connection between the pre-pressure side and the high pressure/ fine adjust side to prevent the leakage of the check valve
8	Pressure fittings	Pressure connection fittings
9	Quick connector	1/4 NPT, 1/2 NPT, 1/4 BSP, 1/2 BSP, M20*1. 5

Typical Operating Position

Handheld



By the wall



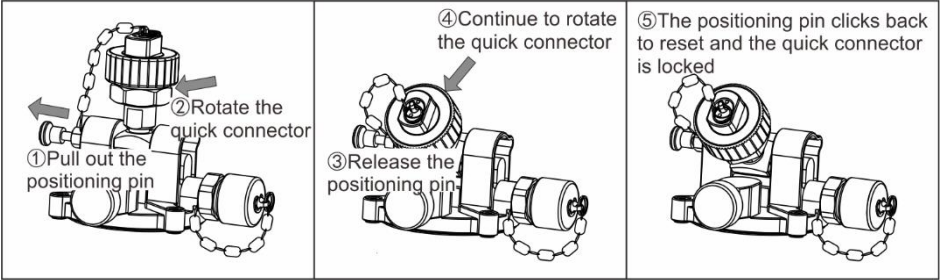
On-table



On-pipe



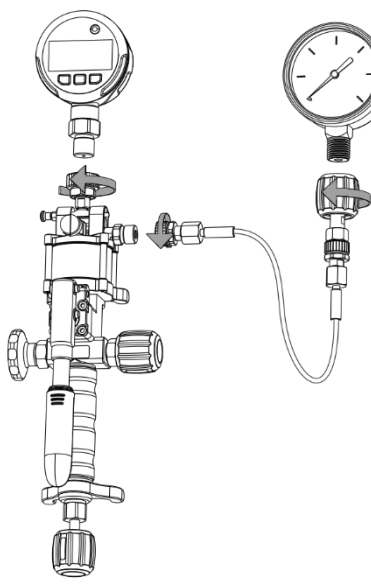
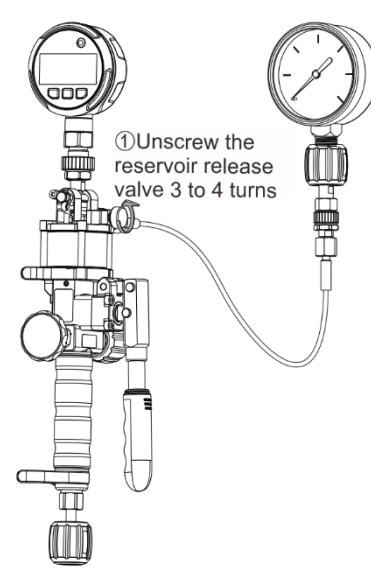
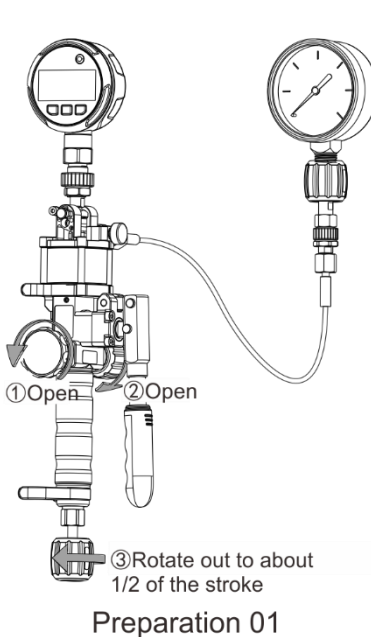
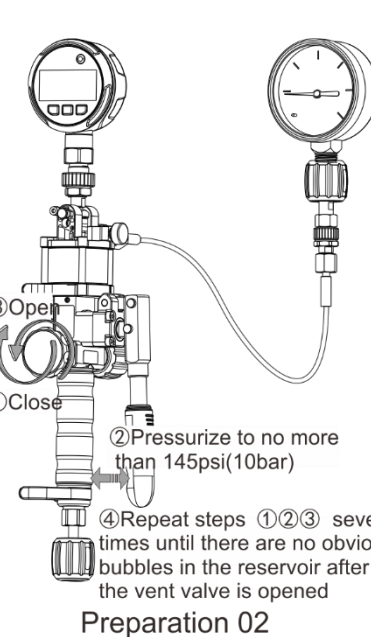
Quick Connector Adjustment



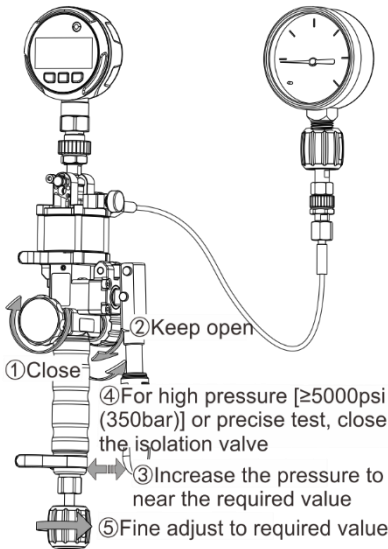
Note: The quick connector adjustment must be performed under zero pressure.

Basic Operation

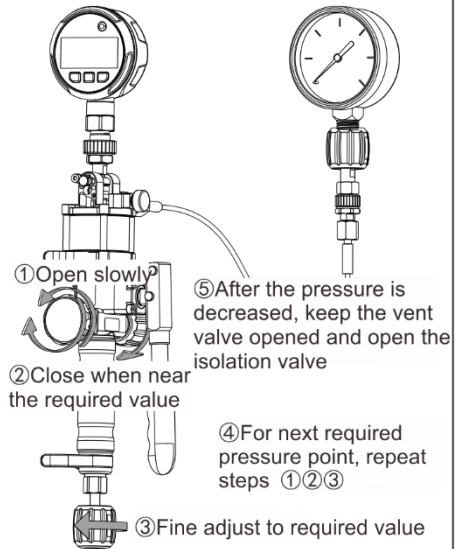
The following operations are illustrated in handheld mode.

A. Connection	B. Vent
	 <p>① Unscrew the reservoir release valve 3 to 4 turns</p>
C. Preparation	
 <p>① Open ② Open</p> <p>③ Rotate out to about 1/2 of the stroke</p> <p>Preparation 01</p>	 <p>③ Open</p> <p>① Close</p> <p>② Pressurize to no more than 145psi(10bar)</p> <p>④ Repeat steps ①②③ several times until there are no obvious bubbles in the reservoir after the vent valve is opened</p> <p>Preparation 02</p>

D. Increase and decrease pressure

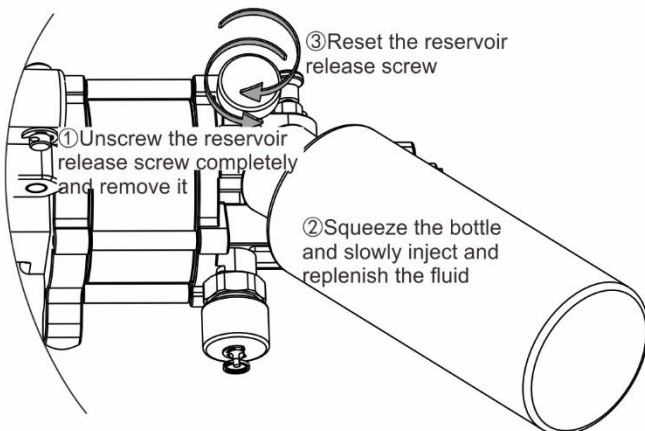


Increase the pressure



Decrease the pressure

Fluid Injection/Refill



Metrology Made Simple

Statement

The product technical specifications, accessories and other related information in this manual are subject to change without prior notice. Please contact Additel Corporation if you have any questions.

Additel Corporation

Website: www.additel.com

Telephone: 714-998-6899



Download User Manual