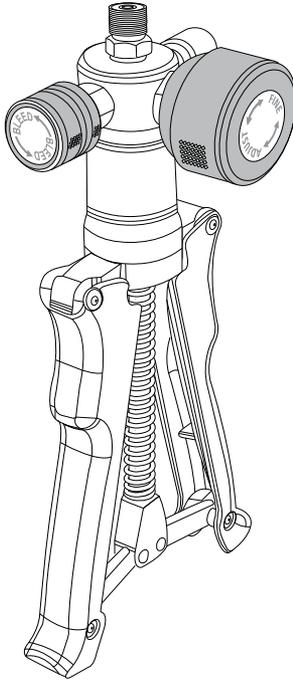


Ralston DCAP Pneumatic Test Pump Operation Manual



For all models of the Ralston DCAP Pneumatic Test Pump

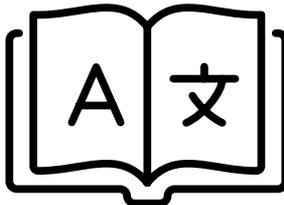
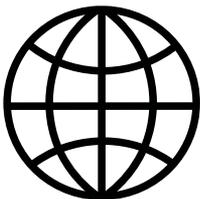


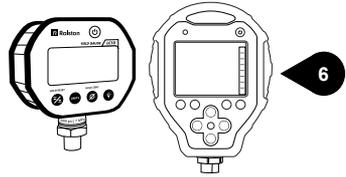
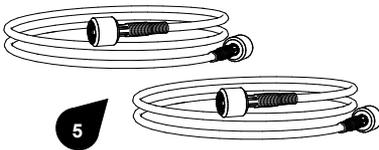
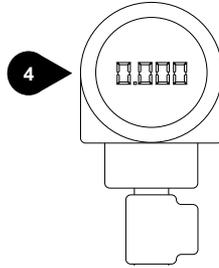
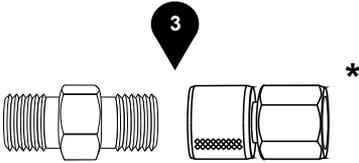
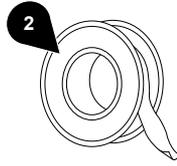
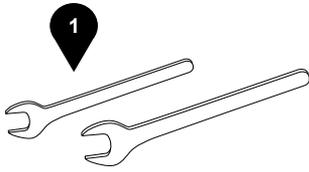
Table of Contents

Specifications	2
Requirements.....	3
Important Safety Notices	4
California Proposition 65 Warning.....	4
DCAP Pneumatic Test Pump Overview	5
Setting Up.....	6
Calibration.....	10
Venting System.....	13
Storage and Transport	14
Maintenance.....	15
Troubleshooting	16
Support.....	17

Specifications

Pressure Range	0 to 600 psi (0 to 42 bar)
Media	Air
Pressure Reference Port	Male Ralston Quick-test™ outlet port, no check valve, stainless steel
Pressure Outlet Port	Male Ralston Quick-test™ outlet port with cap and chain, stainless steel
Temperature Range	0 to 130 °F (-18 to 54 °C)
Seal Materials	Buna-N, Teflon
Construction	Aluminum, Brass, Stainless Steel
Fine Adjust Resolution	+/- 0.001 psi (+/- 0.03 mbar)
Weight	1.75 lb (0.8 kg)
Dimensions	H: 10.5 in (26.67 cm) W: 5 in (12.7 cm) D: 3 in (7.62 cm)

Requirements



* ralstoninst.com/adapters

What you need to use your DCAP Pneumatic Test Pump:

1. Wrenches
2. Thread Tape
3. Ralston Quick-test™ Adapters
4. Device Under Test
5. Ralston Quick-test™ Hoses
6. Pressure Reference

Important Safety Notices

⚠ WARNING: Do not exceed Maximum Working Pressure for this product or damage may result.

⚠ WARNING: Device under test should be isolated from the process, vented and vent valve closed prior to use.

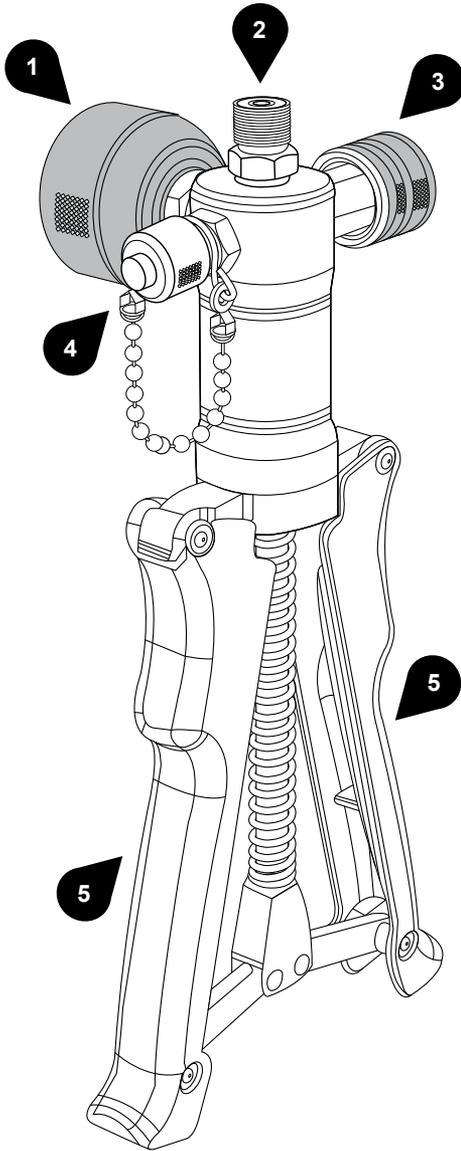
⚠ WARNING: Do not attempt to operate this pump until you have read and fully understand the instructions and hazards of the product.

- Any modifications to this product with custom parts can result in hazardous operation of the hand pump.
- Use eye protection while using this product. Leaking gas, parts or hoses can be ejected at high speed and may cause injury.

California Proposition 65 Warning

⚠ WARNING: Products containing Brass can expose you to chemicals, including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

DCAP Pneumatic Test Pump Overview

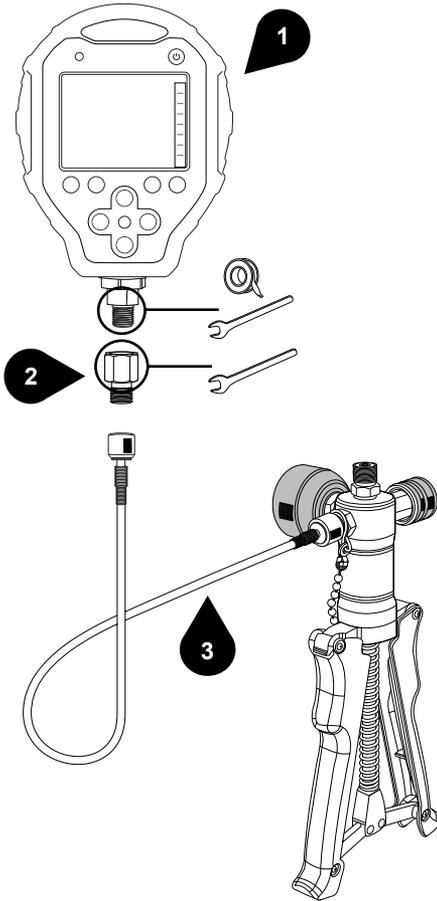


1. Fine Adjust Valve
2. Outlet Port
3. Bleed Valve
4. Outlet Port with Cap & Chain
5. Pump Handles

Setting Up

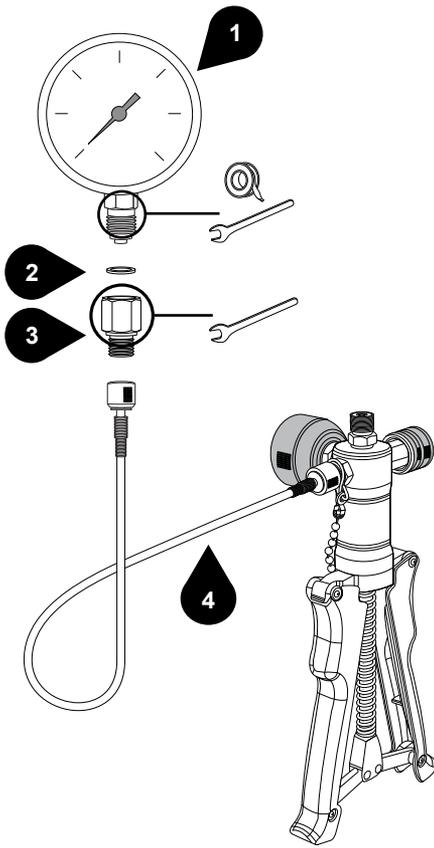
Connecting Reference Gauge

Male NPT Reference Gauge



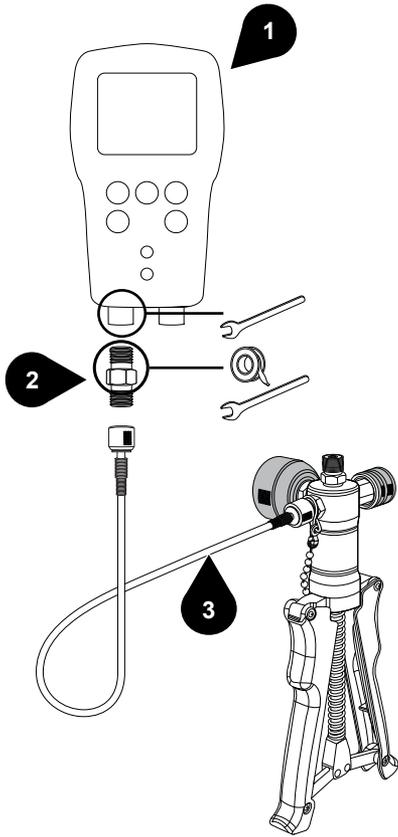
1. Reference Gauge with NPT male connection
2. NPT Female Ralston Quick-test™ Adapter
3. Ralston Quick-test™ Hose

Male BSPP Reference Gauge



1. Reference Gauge with BSPP male connection
2. BSPP Washer
3. BSPP Female (RG) Ralston Quick-test™ Adapter
4. Ralston Quick-test™ Hose

Female NPT Pressure Reference Gauge

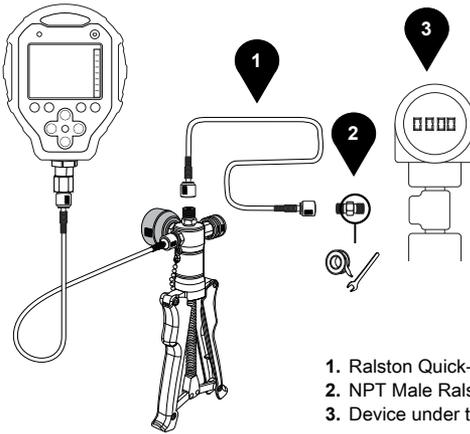


1. Reference Gauge with NPT female port
2. NPT Male Ralston Quick-test™ Adapter
3. Ralston Quick-test™ Hose

Connecting Device Under Test (DUT)

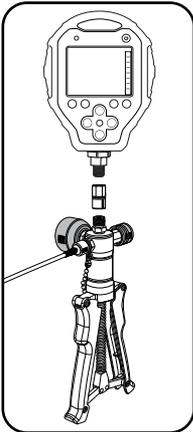
1 Isolate the Device Under Test (DUT) from the process and vent DUT prior to connecting to it.

2



1. Ralston Quick-test™ Hose
2. NPT Male Ralston Quick-test™ Adapter
3. Device under test (DUT)

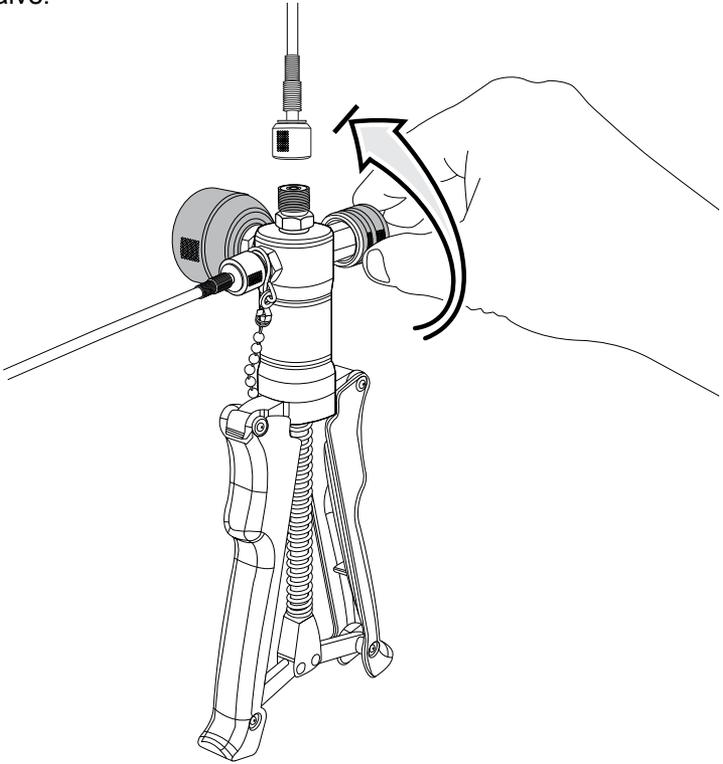
or



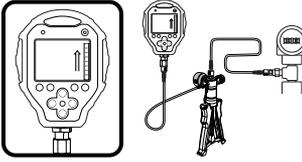
Calibration

Prepare the Pump

Close Bleed Valve.



Increase Pressure



1

A detailed diagram for step 1. It shows a hand operating the pump handle of a pressure pump. A pressure gauge is connected to the pump. A callout arrow points to the gauge's needle, which is positioned just below a target mark. The target mark is a diamond with a crosshair, identical to the "Test point" icon. The text to the right of the diagram reads: "Pump to just below test point. Let pressure reading stabilize. This may take several minutes."/>

Pump to just below test point.
Let pressure reading stabilize.
This may take several minutes.

2

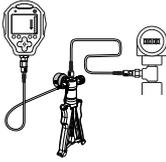
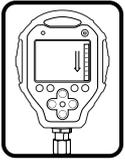
A detailed diagram for step 2. It shows a hand adjusting a screw on the pressure pump. A pressure gauge is connected to the pump. A callout arrow points to the gauge's needle, which is now exactly aligned with the target mark (a diamond with a crosshair). The text to the right of the diagram reads: "Fine-adjust to exact test point."/>

Fine-adjust to exact test point.



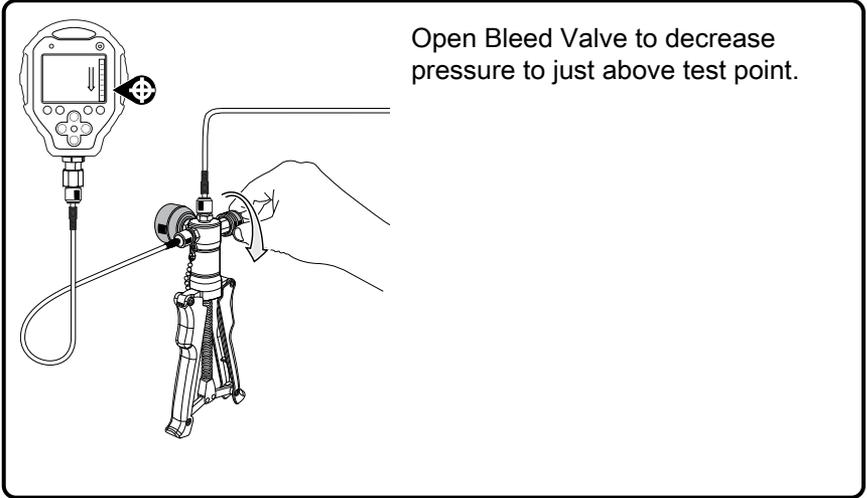
Repeat steps 1 through 2 for each test point up-scale.

Decrease Pressure



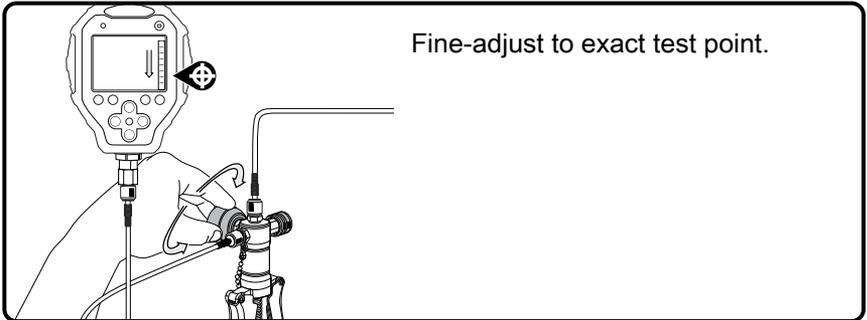
Test point

1



Open Bleed Valve to decrease pressure to just above test point.

2

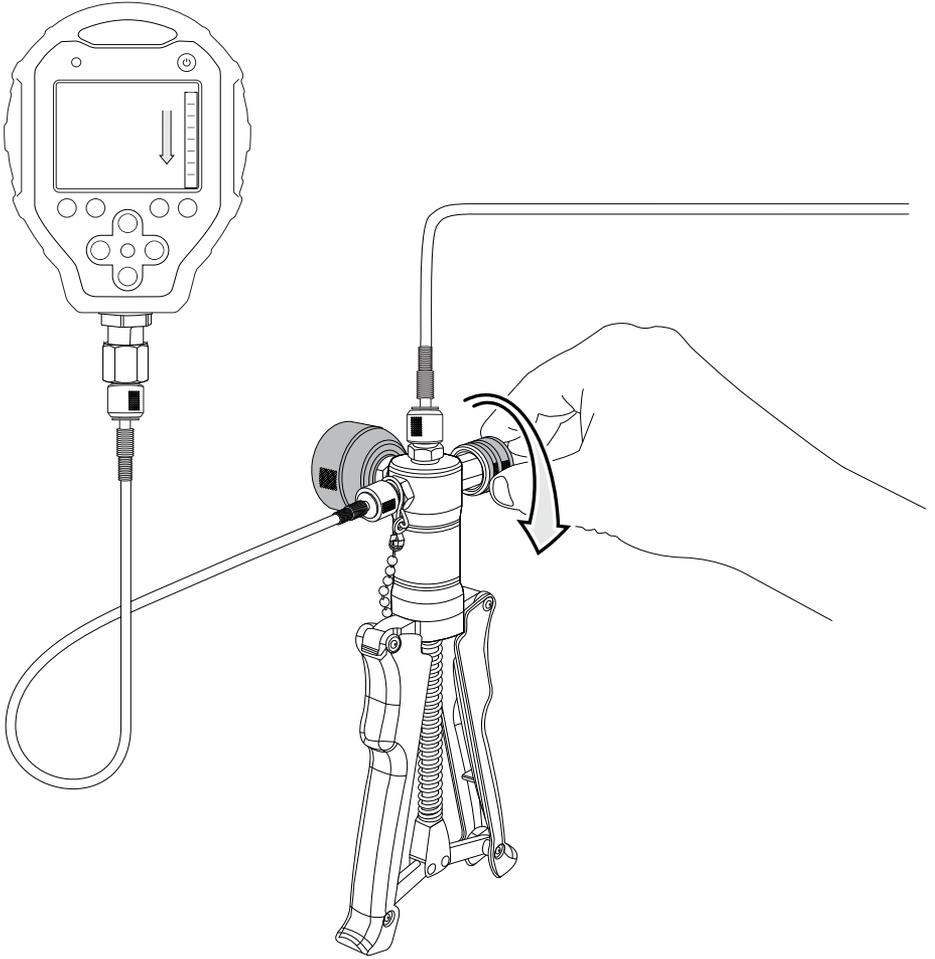


Fine-adjust to exact test point.



Repeat steps 1 and 2 for each test point down-scale.

Venting System

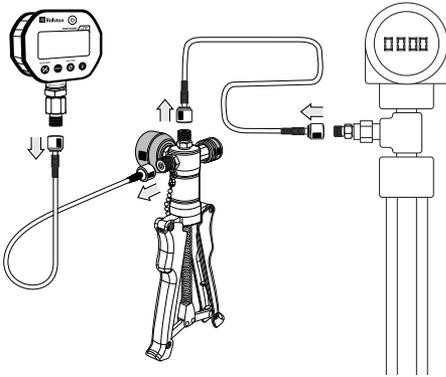


When finished testing, open the Bleed Valve and vent the remaining pressure from the system.

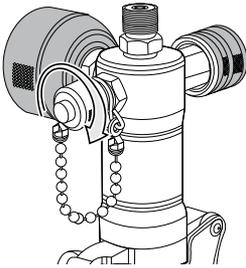
Storage and Transport

Vent system when calibration is completed. See page 13.

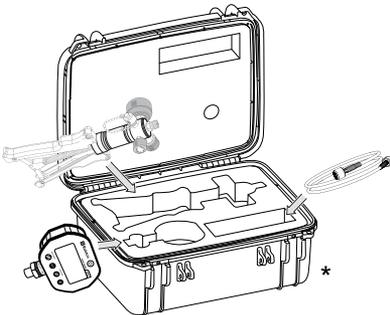
1



2



3



* Ralston DCAP or DCAP-PV Test Pump Carrying Case (DCAP-CASE). Sold separately.

Maintenance

Maintenance Interval

Every 300 uses or 3 months

Maintenance Procedure

- Lubricate the Ralston Quick-test™ fittings by squirting 2 ml of oil inside the connection.
- Lubricate the Fine Adjust Piston O-rings with silicone-based lubricant.
- Lubricate the threads on the Fine Adjust Piston with a graphite-based grease, such as Dow Corning® Moly-kote G-n Metal Assembly Paste (or equivalent).

The Pumping Piston is difficult to pump

If the Pumping Piston is difficult to pump over years of service, then apply a thin coat of graphite grease such as Dow Corning® Moly-kote G-n Metal Assembly Paste (or equivalent).

If the issue was not resolved by these troubleshooting instructions, then please contact support listed on page 17.

Support

Hours: **8:30 am – 5:00 pm EST**

Phone: **1 440-564-1430 • Toll Free: 1 800-347-6575 (US and Canada)**

Web: **ralstoninst.com/support**

Email: **support@ralstoninst.com**

Parts and Service: **ralstoninst.com/dcap**

Ralston DCAP Pneumatic Test Pump Operation Manual

For all models of the Ralston DCAP Pneumatic Test Pump



ralstoninst.com

Hours: 8:30 am – 5:00 pm EST

Phone: 1 440-564-1430

Toll Free: 1 800-347-6575 (US and Canada)

Support: ralstoninst.com/support • Parts and Service: ralstoninst.com/dcap

Email: support@ralstoninst.com