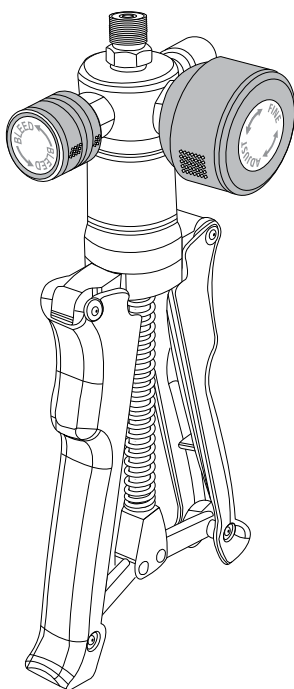


Ralston DCAP Pneumatic Test Pump Operation Manual



For all models of the Ralston DCAP Pneumatic Test Pump

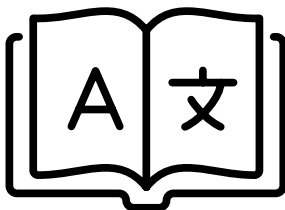
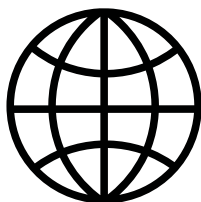


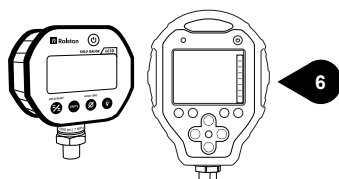
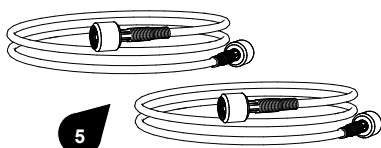
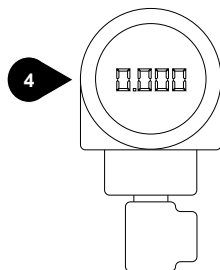
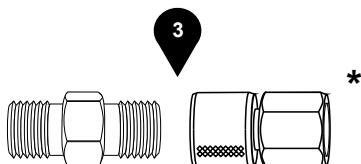
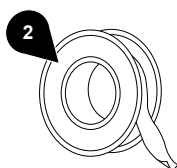
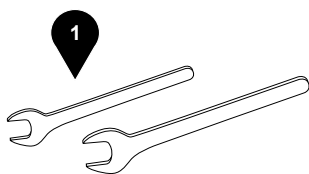
Table of Contents

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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

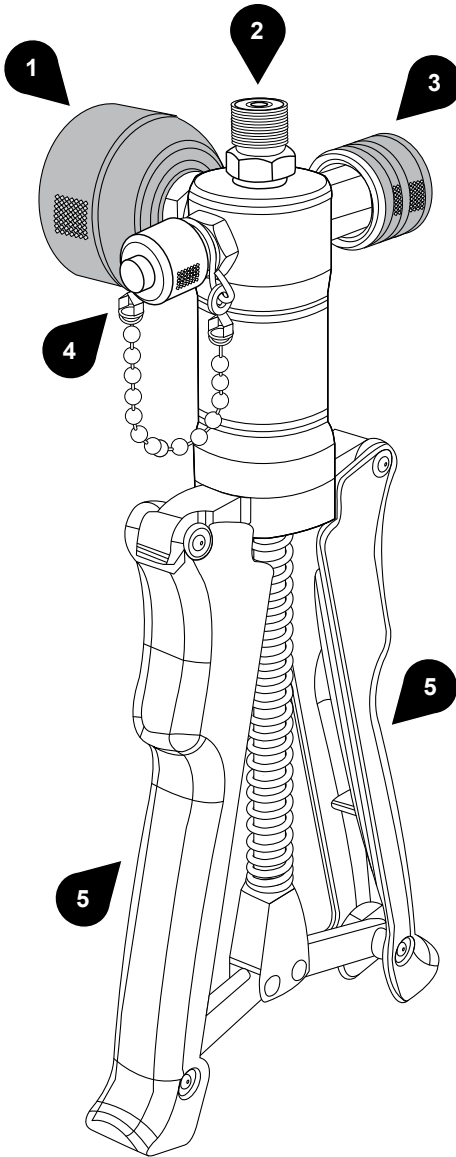
⚠ WARNING: Do not exceed Maximum Working Pressure for this product or damage may result.

⚠ 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.

DCAP Pneumatic Test Pump Overview

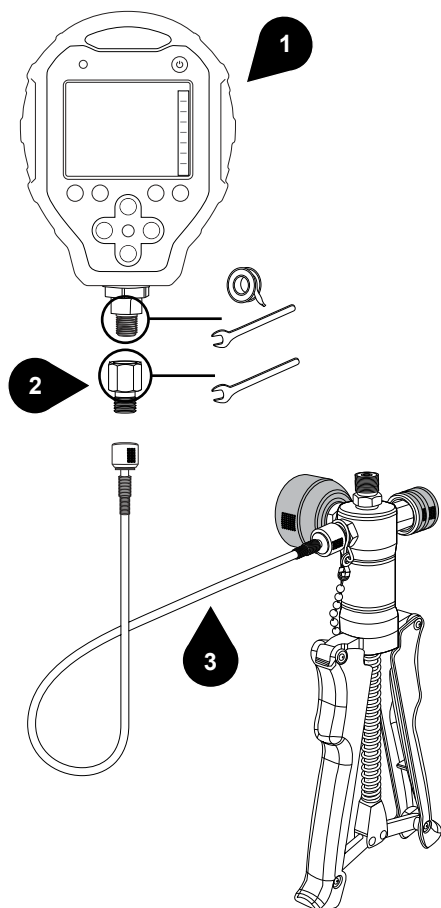


1. Fine Adjust Valve
2. Outlet Port
3. Bleed Valve
4. Outlet Port with Cap & Chain
5. Pump Handles

Setting Up

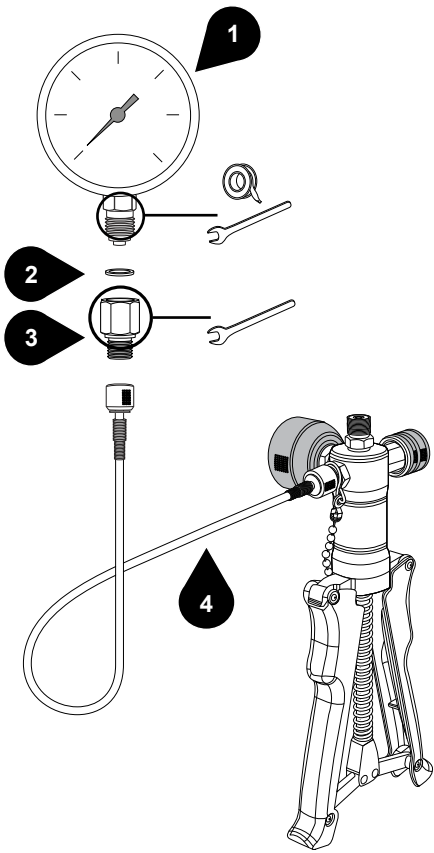
Connecting Reference Gauge

Male NPT Reference Gauge



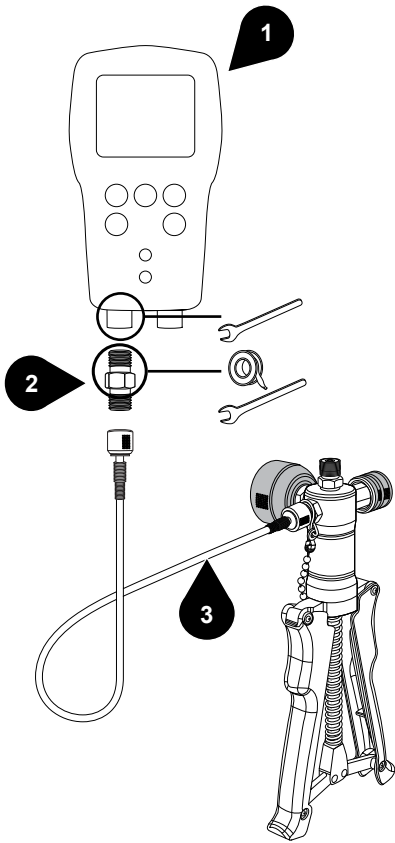
1. Reference Gauge with NPT male connection
2. NPT Female Ralston Quick-test™ Adapter
3. Ralston Quick-test™ Hose

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

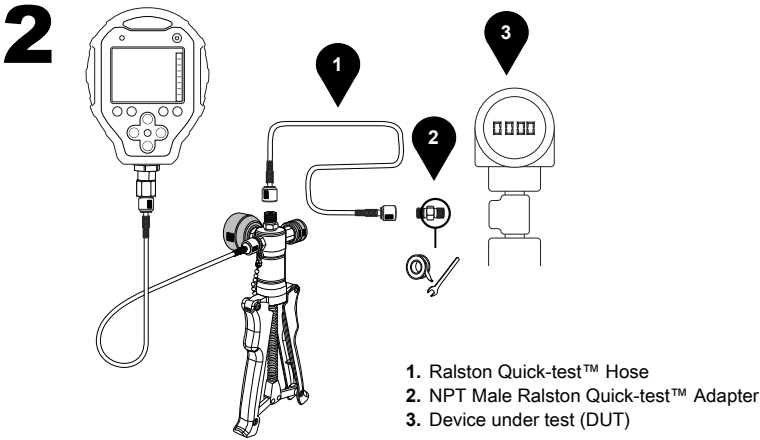
Female NPT Pressure Reference Gauge



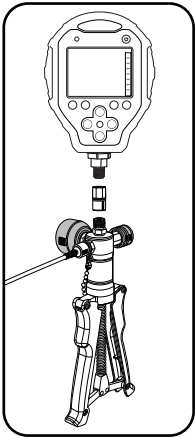
- 1. Reference Gauge with NPT female port
- 2. NPT Male Ralston Quick-test™ Adapter
- 3. Ralston Quick-test™ Hose

Connecting Device Under Test (DUT)

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

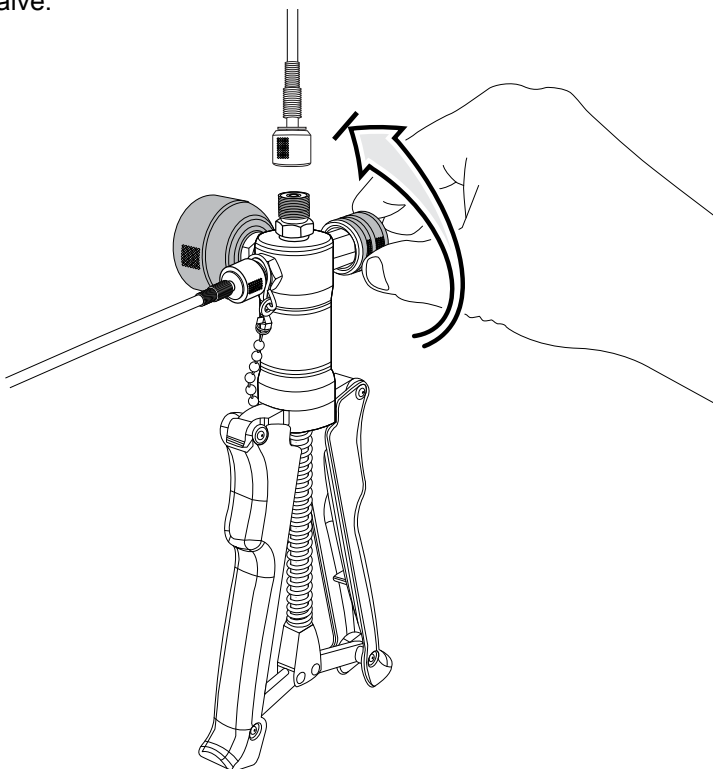


or

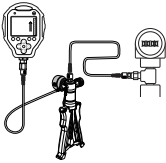
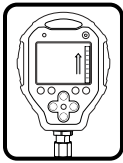


Prepare the Pump

Close Bleed Valve.



Increase Pressure



Test point

1

A line drawing showing a hand operating a pump handle connected to the pressure gauge. The gauge screen shows an upward arrow and a pressure reading. A test point icon points to the gauge screen.

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

2

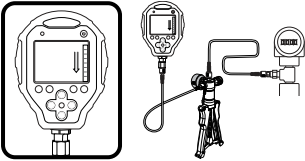
A line drawing showing a hand adjusting a screw on the pump handle. The gauge screen shows an upward arrow and a pressure reading. A test point icon points to the gauge screen.

Fine-adjust to exact test point.



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

Decrease Pressure



1

A detailed diagram of the pressure gauge and test point. A hand is shown turning the bleed valve clockwise, indicated by a curved arrow. A callout arrow points from the text to the bleed valve. The gauge's display shows a downward arrow, indicating pressure is decreasing.

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

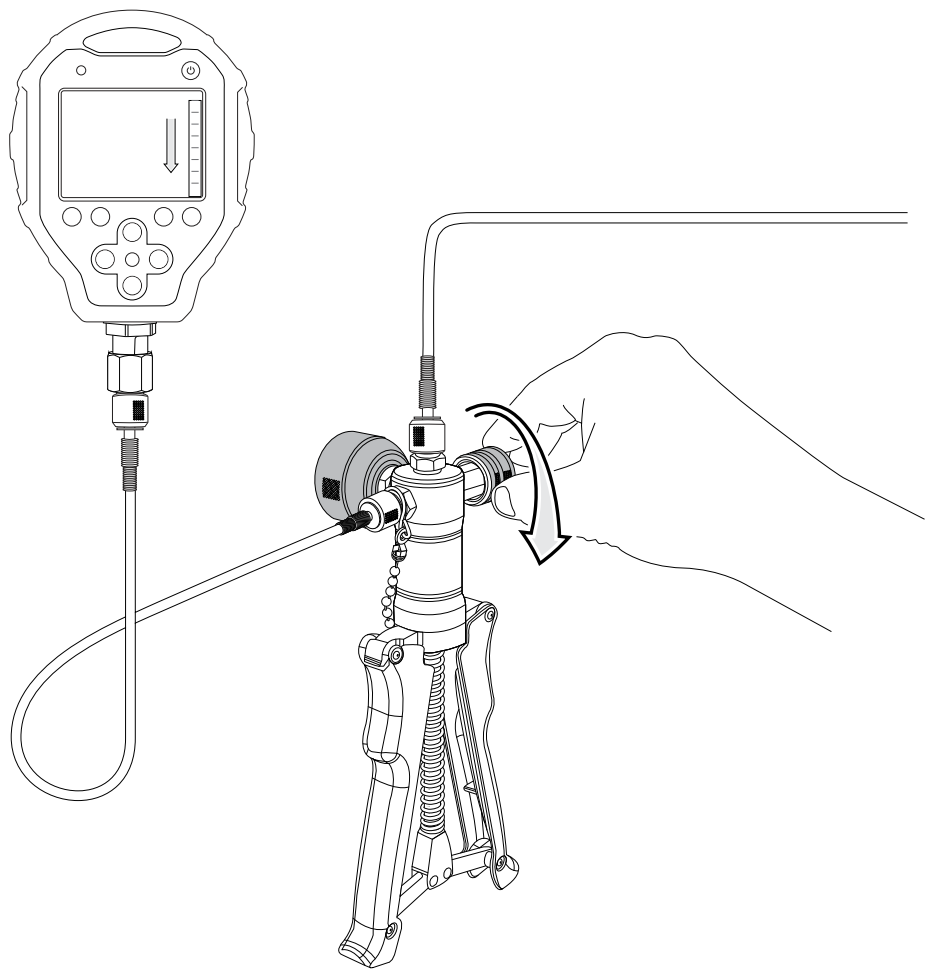
2

A detailed diagram of the pressure gauge and test point. A hand is shown turning the bleed valve counter-clockwise, indicated by a curved arrow. A callout arrow points from the text to the bleed valve. The gauge's display shows a downward arrow, indicating pressure is decreasing.

Fine-adjust to exact test point.

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

Venting System

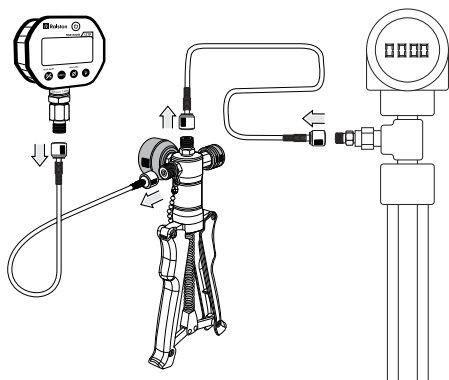


When finished testing, open the Bleed Valve and vent the remaining pressure from the system.

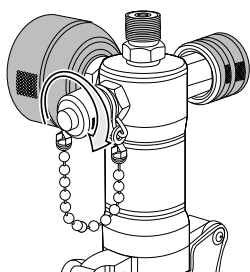
Storage and Transport

Vent system when calibration is completed. See page 13.

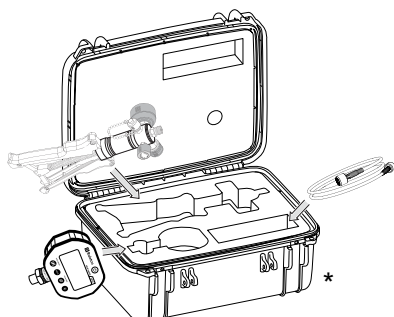
1



2



3



* Ralston DCAP & 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



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