ASHCROFT®

INSTRUCTIONS FOR CONVERTING

ASHCROFT® TYPE 1279 & 1379 SOLID FRONT DURAGAUGE® PRESSURE GAUGES

TO HERMETICALLY SEALED OR LIQUID FILLED VERSIONS WITH GLYCERIN OR SILICONE

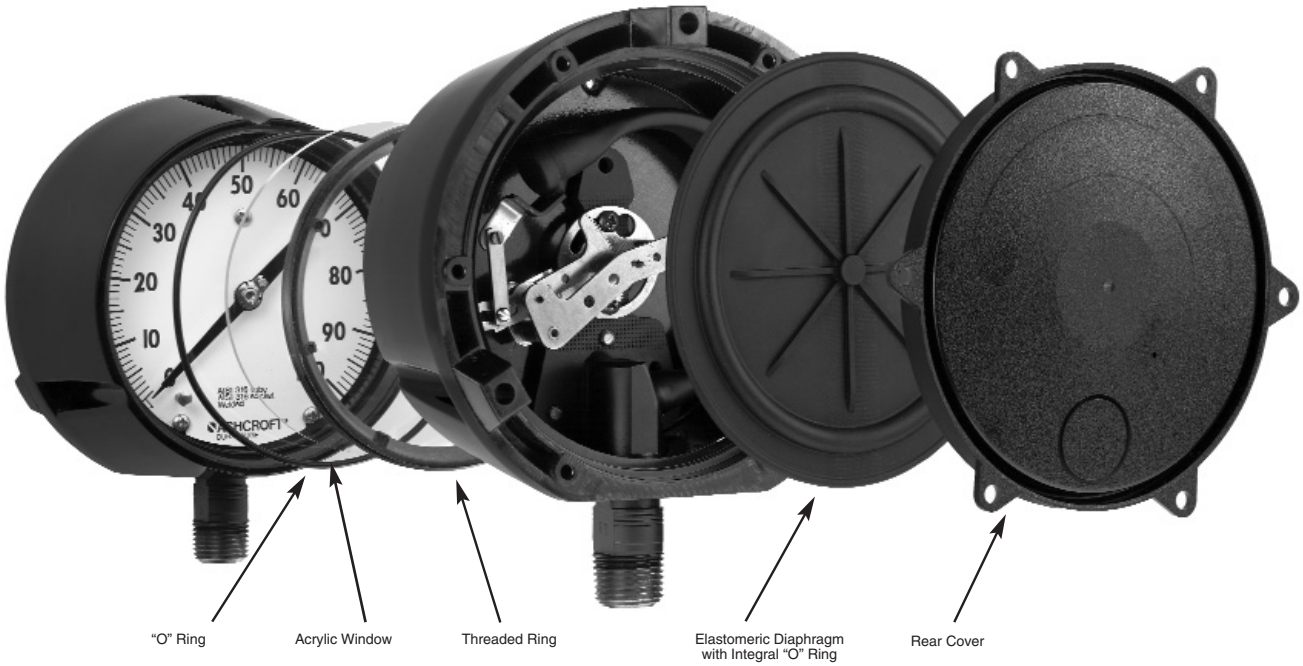
TYPE 1279

TYPE 1379

I&M008-10090 (84B276) Rev. 5/05

DRESSER Instruments

TYPICAL 45-1279_S-04L-100* GAUGE SHOWN WITH KIT 101A202-01



1. Unscrew front threaded ring (turn CCW). Remove and discard glass window. For range spans 60 psi and under, shift pointer down scale by the amount shown in the table. With either the glass or plastic window, replace the O-ring with one furnished in the kit.

2. Remove protective paper from acrylic plastic window taking care not to scratch window. Assemble window in gauge.

3. Moisten face of threaded ring with silicone oil or silicone grease where ring bears up against window. Replace front threaded ring and tighten firmly hand tight. See instructions on reverse side for applying proper torque to ring to establish desired squeeze on O-ring seal. **(Fig. 4).**

It is important to hold gauge **rigidly,** otherwise ring lugs may be damaged during removal or assembly process.

4. From rear of gauge, remove and discard these parts: rear cover and cover gaskets from case.

Note: Disregard Step No.s 5a and 5b if converting to hermetically sealed version.

5. Filling Procedures:

a. Manual Filling Procedure: Place gauge face down on bench and **tip gauge** by blocking up front with a ⅜ inch block at the 12 o'clock dial position. Tipping of the gauge is necessary so fluid will flow into front cavity of the case. Pour in fill liquid to within about 1⁄16 inch of rear seal lip. When bubbles stop rising, front cavity is filled. Remove ⅜ inch block and pour in liquid until level is about 1⁄16 inch below rear sealing lip.

Note: An alternative method of filling is to fill the front dial cavity, adding the front window, etc., as in Step No. 3. Then fill the rear of the gauge. This method eliminates the need to tip the gauge.

b. Vacuum Pump Fill Procedure: (This procedure is recommended when filling a large number of gauges.) Place gauge face down and insert a ⅛ inch diameter tube, connected to a vacuum pump, through the 12 o'clock position hole in the rear, solid front portion of the case **(see Fig. 5).** Evacuate the air from the front dial cavity while pouring in the fill fluid through the case back. The vacuum will displace the air with fluid. When the dial cavity is solidly filled, remove the tubing and continue to pour the fill fluid to within 1⁄16 inch BELOW the O-ring channel lip.

LIST OF INCLUDED PARTS		
DESCRIPTION	4½˝ LOWER CONN. 101A202-01	4½˝ BACK CONN. 101A203-01
ACRYLIC WINDOW	1	1
FRONT O-RING	1	1
DIAPHRAGM	1	1
REAR COVER	1	1
COVER SCREWS	4	4
THROTTLE SCREWS	2	2
GARTER SPRING	–	1
FILL IDENTIFICATION	1	1

Pre-measuring fill amount is not necessary with above methods. For reference, amount of fill is approximately 400 ml. or 14 fluid oz. (4½˝ GA.) and 455 ml. or 16 fluid oz. (6˝ GA.).

c. Note: The liquid fill level should be ⅜˝ (±⅛) as measured from the inside of the ring at the 12:00 o'clock position.

6. On lower connection gauges, assemble rear seal diaphragm to case.

For back connection gauges see instructions on reverse side. **(Fig. 2/4).**

7. Assemble rear cover and six self tapping screws in a criss-cross pattern.

Assemble throttle screw to threaded hole in socket.

Note: If system is monel (socket wrench flat stamped "PHS" or "PH") use monel throttle screw.

8. Check appropriate box on fill identification label, and peel off label back, and attach fill label to gauge case.

9. If gauge is to be repackaged:

a. Include enclosed instruction sheet inside carton.

b. Change type number on carton label to:

(1) Hermetically Sealed – 1279(*)SH.

(2) Liquid Filled – 1279(*)SL.

*Bourdon Tube System Code

DRESSER Instruments

	Ambient Temperature Limits		60 psi and Under
	°F	°C	Down Scale Zero Shift Required
Weatherproof	–50/150	–45/65	N/A
Hermetically Sealed	–10/125	–25/50	N/A
Glycerin Filled	0/150	30/65	.15 psi
Silicone Filled	–50/150	–45/65	.12 psi

Glycerin or silicone should not be used in applications involving Oxygen, Chlorine, Nitric Acid, Hydrogen Peroxide or other strong oxidizing agents, because of danger of spontaneous chemical reaction, ignition or explosion. Halocarbon should be specified. Products with this fill can be ordered from factory.

The use of fluids other than those listed in the table above (for example, Hydrocarbon-based oils) may result in leakage caused by a reaction between the fluid and the elastomeric seals.

Consult the factory before filling with any other fluid.

INSTRUCTIONS FOR USING CONE TOOL AND RING WRENCH

Fig. 2
BACK CONNECTION ASSEMBLED GAUGE

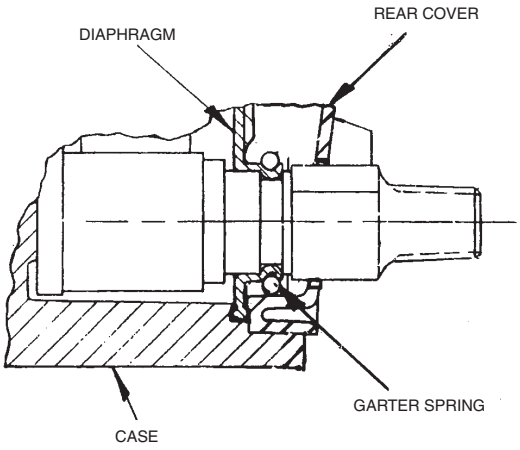
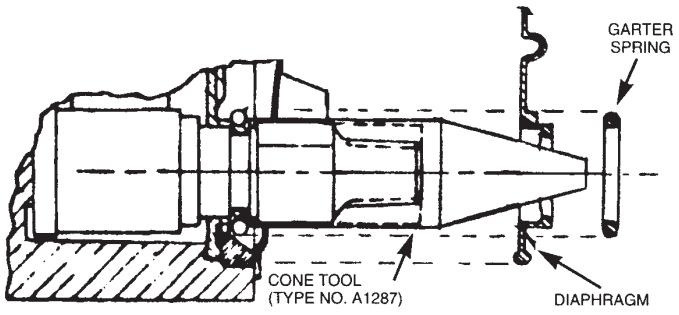


Fig. 3



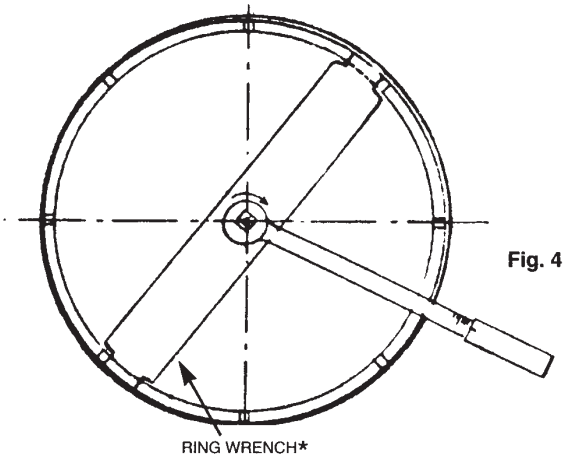


Fig. 4

GARTER SPRING & DIAPHRAGM ASSEMBLY (BACK CONNECTION GAUGE ONLY)

A. Place cone tool over socket shank as shown.

B. Moisten lip of socket and outer O-ring surface with silicone oil or grease.

C. Place diaphragm with rib side facing upward over cone into case grove. **Diaphragm O-ring must be completely in socket-shank grove.**

D. Place garter spring over cone as shown and slide onto diaphragm in socket grove

E. Assemble rear cover with screws per step 7.

FRONT RING ASSEMBLY (ALL GAUGES)

A. Assemble ring to case by hand to start.

B. Place ring on wrench as shown

C. Use ½″ drive extension and torque ring to 200 in. lb

ALTERNATE METHOD

A. Tighten ring snugly by hand

B. Mark case and ring.

C. Turn ring another 100 to 120 degrees (slightly less than ½ turn) using the ring wrench and ½″ drive socket wrench or place the blunt end of a wooden or plastic dowel against a ring lug and tap with a hammer.

INSTRUCTIONS FOR LIQUID FILLING ASHCROFT® TYPE 1279 AND 1379 SOLID FRONT DURAGAUGE® PRESSURE GAUGES USING A VACUUM PUMP

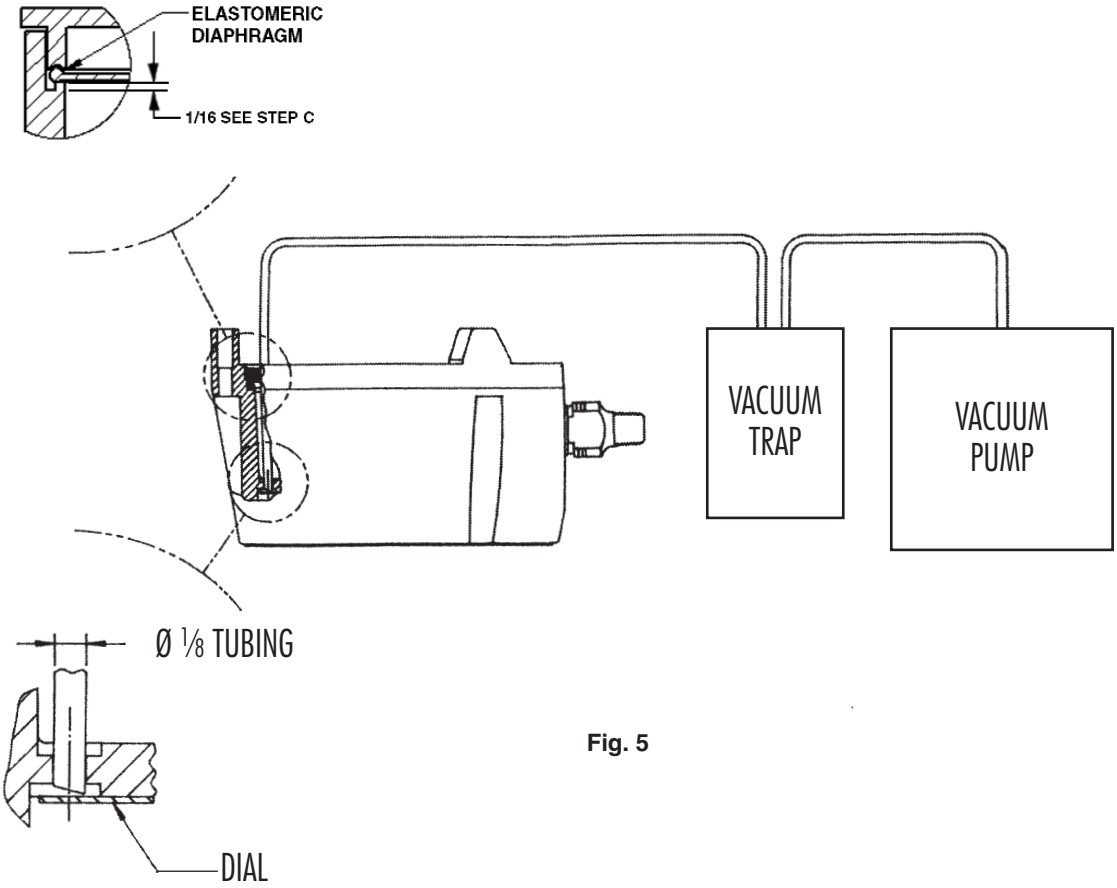


Fig. 5

A. Insert a length of 1⁄8 inch diameter tubing through the 12 o'clock position hole in the rear, solid front portion of the case, as shown.

B. Evacuate the air from the front dial cavity while pouring in the fill fluid through the case back. The vacuum will displace the air with fluid.*

C. When the dial cavity is solidly filled, remove the tubing and continue to pour the fill fluid to within 1⁄16 inch below the o-ring channel lip, as shown.

*To prevent breakage, reduce vacuum to 15 in. Hg for plain glass and safety glass.

DRESSER
Instruments

Dresser Instruments
Dresser, Inc.
250 East Main Street
Stratford, CT 06614
Tel: 203-378-8281
FAX: 203-385-0408
www.ashcroft.com

I&M008-10090 (84B276) Rev. 5/05 Printed in U.S.A.

© Dresser Instruments, Dresser, Inc.