

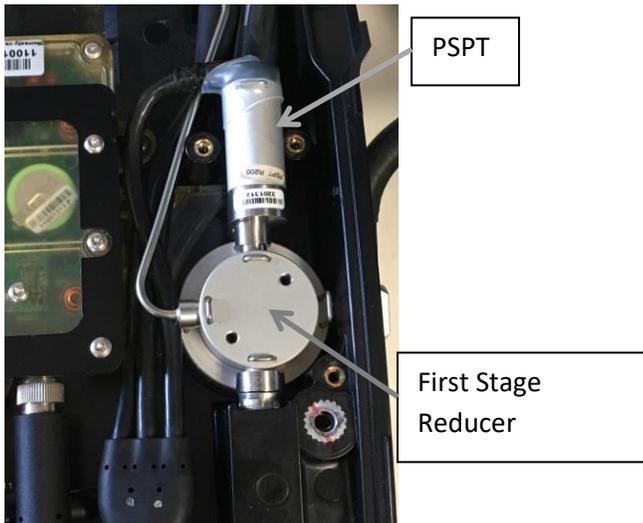
Deltair Pressure Transducer Replacement

P/N: 025562



**Caution: Avon Protection requires replacement of the identified pressure transducer as detailed on this bulletin at the earliest possible date. During cold temperature operation the transducer may give an inaccurate pressure signal indicating the cylinder pressure is higher than actual. This may also prevent the electronics from being shut down after system pressure has been reduced to ambient.**

Avon Protection has become aware of a potential issue regarding the PSPT, Power Saving Pressure Transducer, identified in the photo below (inside backframe, cover removed).



In some cases of cold temperature operation, and due to a defective pressure transducer lot from our supplier, the system may give an inaccurate pressure signal indicating the cylinder pressure is

higher than actual. This may also prevent the system electronics from being shut down after the system pressure has been vented and returned to ambient.

A method of detection while in use would be to compare the pressure indicated in the HUD to the mechanical pressure gauge adjacent the control console, wherein the HUD may indicate higher cylinder pressure.

This potential issue does not affect the audible Low Air Alarm, which will remain effective to alert the user when approximately 33% cylinder pressure is reached.

User responses to a pressure disagreement between the HUD and mechanical pressure gauge would be to utilize the information from the mechanical pressure gauge, as well as the Low Air Bell Alarm.

You are receiving this technical bulletin because your organization has been identified as a possible recipient of SCBA incorporating these pressure transducers. Avon Protection requires replacement of the pressure transducer at the earliest possible date, of any SCBA identified with affected transducers.

This Avon Technical Bulletin provides the following information related to the replacement:

- How to identify affected SCBA
- Entities authorized to provide replacement
- How to request replacement components
- Requisite tools and components
- Replacement and testing instructions
- Reporting requirements



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**Deltair Pressure Transducer Replacement**

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**Identification of affected units:**

Deltair SCBA will have a serial number label located on the exterior of the backframe housing, on the side opposite where the high pressure hose enters. If the external label becomes illegible there is also another inside the backframe housing.



External label



Internal label

**The affected serial number range is:**

**500016221001 through 500024210005**

The approximate manufacturing date range is March 22, 2017 through January 24, 2018.

**Entities authorized to provide replacements:**

The pressure transducer replacement may be conducted by Avon factory technicians, distributor Service Center technicians, and End User certified technicians, after reviewing this bulletin and completing any necessary certification training.

Mandatory replacement of the pressure transducer must be completed following these instructions.

**Replacement Request Process:**

To initiate the replacement request process:

- A. Contact your **Local Distributor**  
or
- B. Avon Protection Customer Service:  
**1-888-286-6440**  
[customerservice@avon-protection.com](mailto:customerservice@avon-protection.com)  
**+44 (0) 1225 896705**  
[protection@avon-protection.com](mailto:protection@avon-protection.com)

**Tools & Parts Required:**

- #2 Phillips driver
- T15 Torx driver
- Tweezers
- Clear heat shrink – PN **039037**
- Heat gun
- Razor knife
- Replacement Pressure Transducer – PN **025562**
- Christolube MCG-111 – PN **047002**
- PosiChek or calibrated 5k psi gauge
- 4500/2216 psi breathing air source

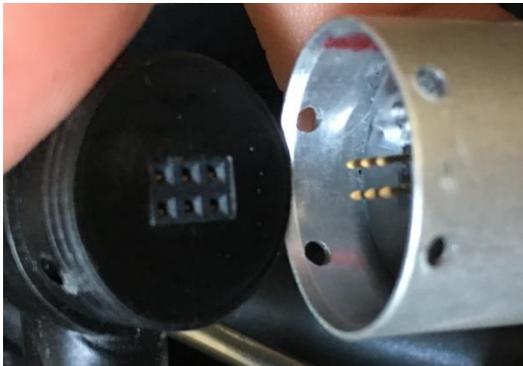


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### Pressure Transducer Replacement and Testing Instructions:

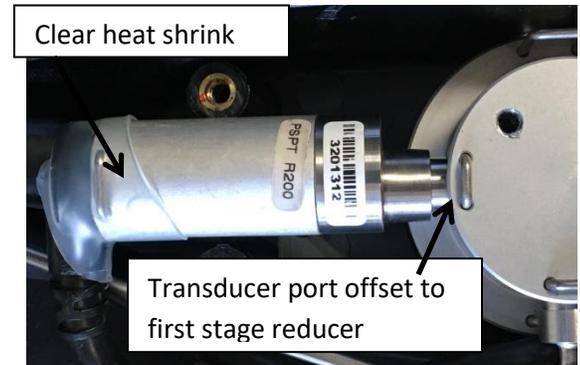
1. Remove cylinder and cylinder band.
2. Remove battery pack.
3. Loosen 4 quarter–turn fasteners on backframe. Only move backframe over enough to access the pressure transducer near bottom of backframe housing.
4. Using a T15 driver, remove 4 screws then remove plastic cover from the first stage reducer. Note offset orientation of transducer to first stage reducer with image shown in Step 12.
5. Carefully slit the clear heat shrink from the pressure transducer and remove the heat shrink. Do not cut into connector overmold.
6. Remove long u-clip and carefully remove connector from pressure transducer. Inspect connector pins on transducer and sockets on cable end.



7. Remove short u-clip and remove old transducer from first stage reducer. Keep separate for return to Avon.
8. Verify the o-ring and white backup washer are situated inside the first stage reducer then insert the new pressure transducer into the port. Secure with the high pressure u-

clip. Verify offset orientation of transducer to first stage reducer with image shown in Step 12.

9. Apply dielectric grease lightly across cable connector face.
10. Align cable connector to new pressure transducer pins and insert fully into transducer housing. Compress slightly and fully insert the u-clip. Do not use excessive force, but do ensure the u-clip is fully seated.
11. Record serial number information on form.
12. Cut a piece of the clear heat shrink approximately 1” long and place over the u-clip connection, then use the heat gun to shrink. Use only enough heat to get the job done. Apply the heat evenly and do not overheat.



13. Verify cables are routed correctly, then reinstall the plastic cover and secure with the four T15 screws.

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14. Perform the Pressure Test Procedure as outlined below. Record results.
15. Ensure all cables and hose are routed correctly, then reinstall the backframe to the backframe housing. Once fully in place, use the 4 quarter-turn screws to secure.
16. Reinstall the cylinder band and cylinder.
17. Perform a functional test using air pressure applied to the SCBA. Verify the following:
  - Unit powers up with pressure > 250 psi
  - Backframe flashing locator lights flashing
  - HUD indicates proper pressure level
  - VAS (voice amp) functional
  - Pre-Alert functional, shake to reset
  - Bleed air pressure from unit
  - Power down via Console Reset double press

**Pressure Test Procedure:**

1. Connect the SCBA to air source and calibrated pressure gauge or PosiChek.
2. Apply a minimum of 3375 or 1662 psi to the SCBA, dependent upon a 4500 or 2216 system respectively.
3. Shutoff the valve from the air source and allow settling for 5 seconds.

4. Verify the unit does not leak more than 20 psi within a 5 second period.
5. After obtaining positive results from the leak test, perform a gauge accuracy test for the HUD using the parameters found in the table below.

**NOTE: When bleeding the air pressure down for the HUD accuracy test, bleed the air pressure, slowly, using the Bypass knob on the mask. Observe the calibrated gauge as you slowly bleed down to the 3/4 range. Compare the HUD indication against the calibrated gauge, using the parameters given in the table below. Once accuracy is confirmed, continue on to the 1/2 and 1/3 ranges using the same process for each. After all three ranges are verified as good, fully depressurize the system.**

The percent gauge and HUD shall be accurate to within +/- 5% of full pressure (+/- 110 psi for 2216 unit or +/- 225 psi for 4500 unit). Check HUD at 3/4, 1/2, and 1/3 increments as described in the tables below.

**4500 SCBA**

Test Range	Pressure Range (psi)	HUD Lights
3/4	3150 <-> 3600	Red/Amber/Green
1/2	2025<->2475	Red/Amber = <b>Slow Flash</b>
1/3	1485<->1665	Red/Amber = <b>Fast Flash</b>

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A. [protection@avon-protection.com](mailto:protection@avon-protection.com)

or

B. FAX to: +44 (0) 1225 896 301

4. Upon receipt of the test form, Avon Protection Customer Service will provide a return authorization number and information to return the replaced pressure transducers.

**2216 SCBA**

Test Range	Pressure Range (psi)	HUD Lights
3/4	1552<->1772	Red/Amber/Green
1/2	998<->1218	Red/Amber = <b>Slow Flash</b>
1/3	732<->820	Red/Amber = <b>Fast Flash</b>

**Reporting:**

1. Document the work performed by recording the Serial Number of the SCBA, Serial Number of replacement transducer, date, technician name, and final pressure test results, on the attached Pressure Transducer Replacement Test Form (last page). This form may be printed and filled out manually, or by filling out the form and emailing to Customer Service.
2. Note any anomalies on the test form.
3. Submit the completed form to Avon Protection Customer Service at:

The Americas

A. [customerservice@avon-protection.com](mailto:customerservice@avon-protection.com)

or

B. FAX to: 410-273-1301



