

# Pressure Transducer/Swivel Assembly



**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

## 1. Introduction

The following paragraphs provide installation and maintenance procedures for the pressure transducer and pressure transducer swivel assembly.



**WARNING:** To prevent injury to personnel and damage to equipment, disconnect and lockout power to the system. Relieve fluid and system pressure.

## 2. First Time Installation

1. See Figure 1. Remove the locknut (1) from the swivel assembly (2).
2. Remove the transducer adapter swivel (3) from the swivel assembly (2).
3. Before continuing, make sure the O-rings (8) are installed.
4. Remove the transducer plug (4) from the spray gun (5).
5. Install the swivel stem (6) into the gun transducer port. Tighten securely.
6. Install the transducer adapter swivel (3) to the pressure transducer (7). Tighten securely.
7. Slide the pressure transducer (7) and the transducer adapter swivel (3) onto the swivel stem (6).
8. Rotate the pressure transducer (7) to the desired position. Install the locknut (1).

## 2. First Time Installation

(contd.)

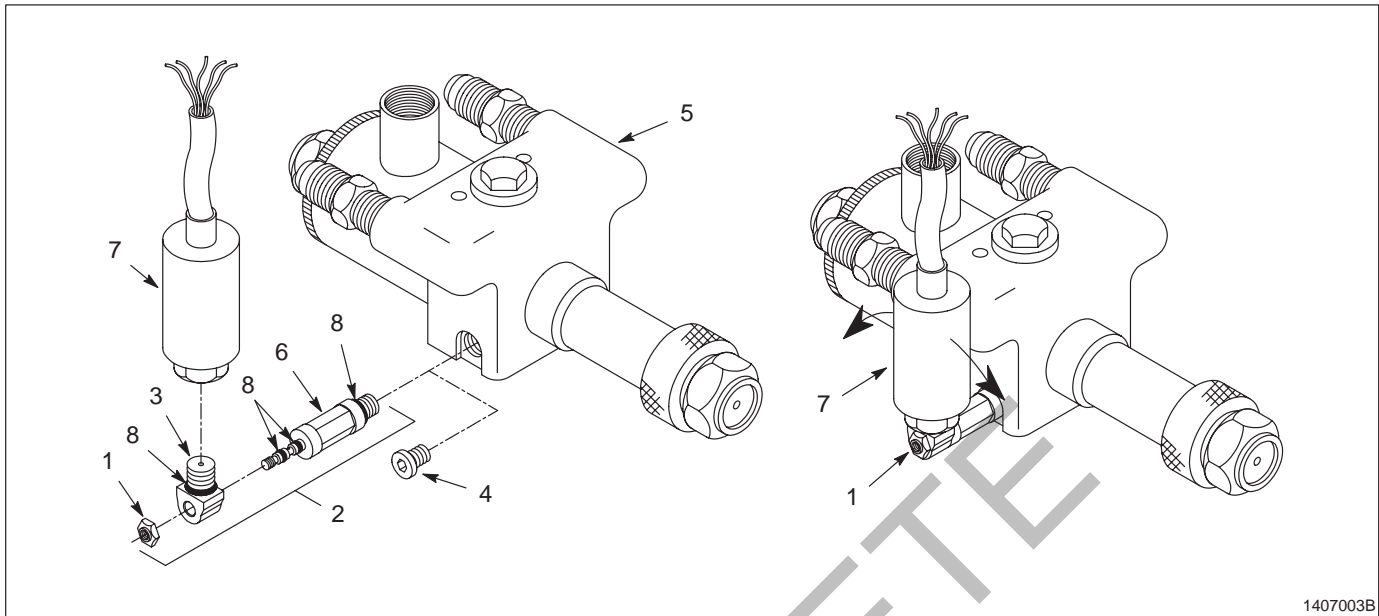


Fig. 1 Pressure transducer/swivel assembly installation

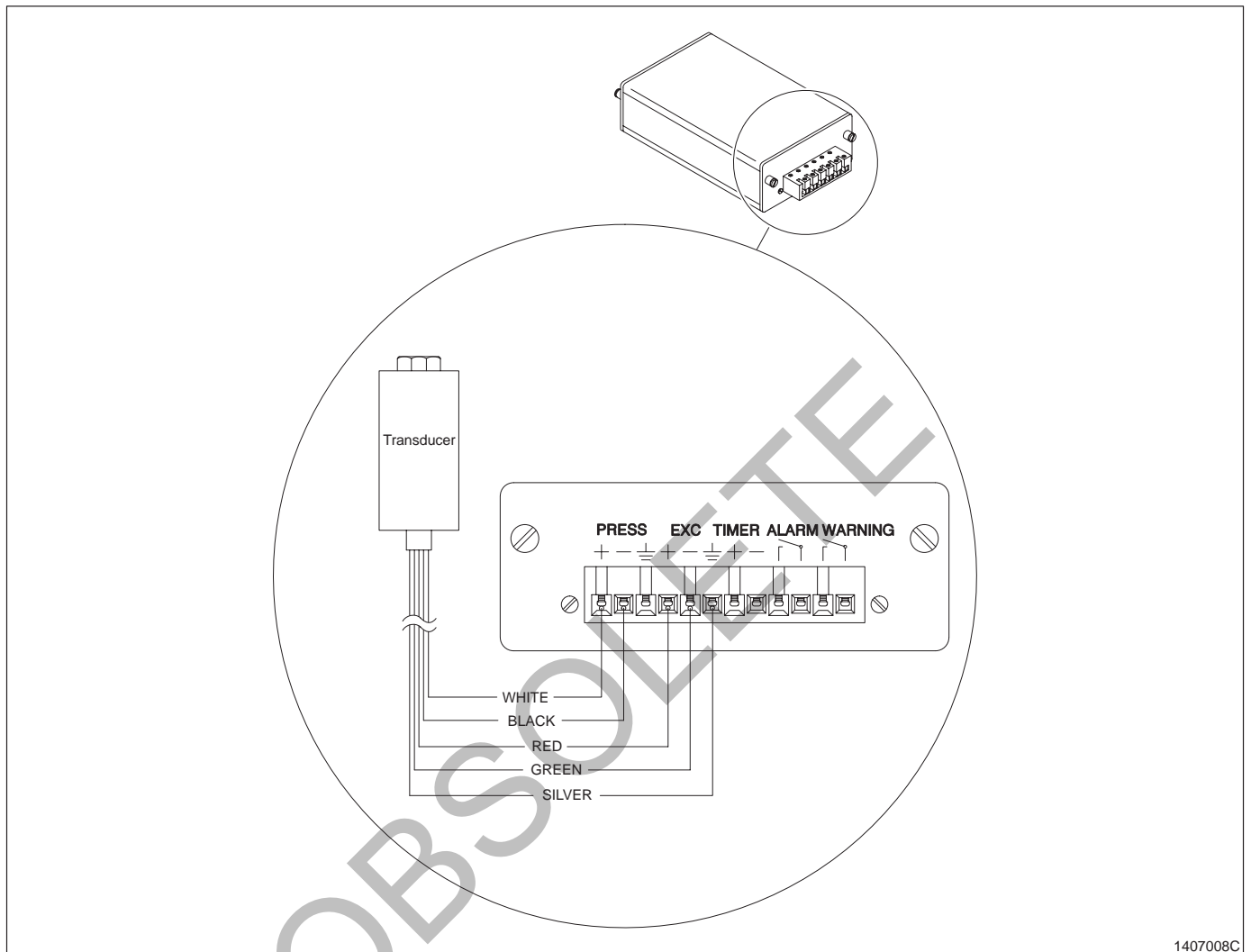
- |                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| 1. Locknut                    | 4. Transducer plug | 7. Pressure transducer |
| 2. Transducer swivel assembly | 5. Spray gun       | 8. O-rings             |
| 3. Transducer adapter swivel  | 6. Swivel stem     |                        |

9. [See Figure 2.](#) Connect the pressure transducer wires to these inputs on the SM-1 Spray monitor end cap:

<u>Transducer</u>		<u>Spray Monitor Connector</u>
White wire	to	PRESS +
Black wire	to	PRESS –
Red wire	to	EXC +
Green wire	to	EXC –
Silver wire	to	$\perp$

## 2. First Time Installation

(contd.)



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Fig. 2 Pressure transducer electrical connections

### 3. Replacing Transducer

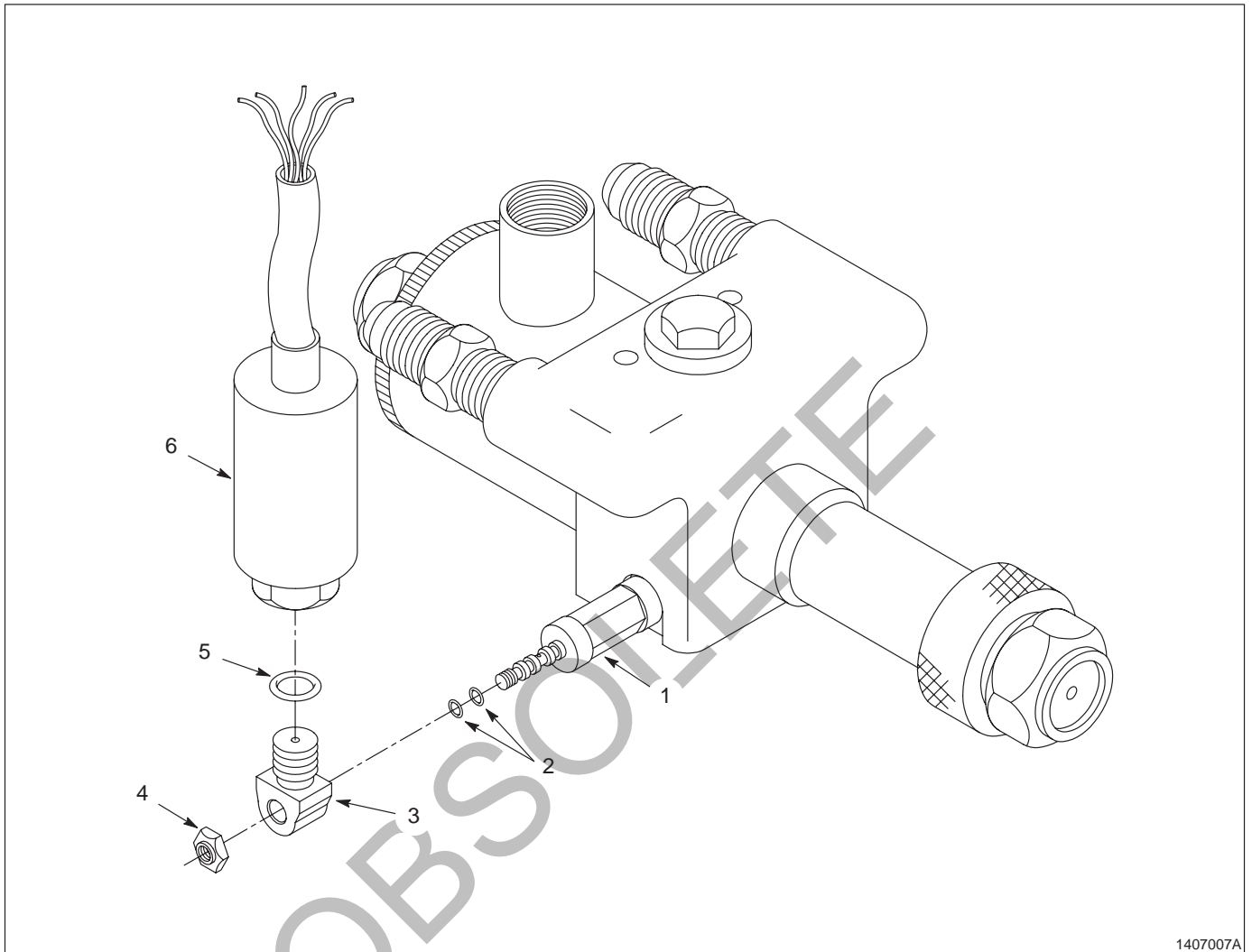
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**WARNING:** To prevent injury to personnel and damage to equipment, disconnect and lockout power to the system. Relieve fluid and system pressure.

1. Disconnect the pressure transducer wires from the SM-1 spray monitor or CanWorks junction box.
2. [See Figure 3](#). Remove the locknut (4) securing the transducer adapter swivel (3) to the swivel stem (1).
3. Remove the pressure transducer (6) and the transducer adapter swivel (3) from the swivel stem (1).
4. Remove the transducer adapter swivel (3) from the pressure transducer (6). Discard the O-ring (5).
5. Inspect the swivel stem O-rings (2) for any damage. Replace damaged O-rings. Refer to Replacing Swivel Assembly O-rings on the following page.
6. Lightly lubricate the O-ring (5) with the supplied lubricant.
7. Install the transducer adapter swivel (3) to the pressure transducer (6). Tighten securely.
8. Slide the pressure transducer (6) and transducer adapter swivel (3) onto the swivel stem (1).
9. Rotate the pressure transducer (6) to the desired position. Install the locknut (4).
10. Connect the pressure transducer wires:
  - [See Figure 2](#) to connect the pressure transducer wires to the SM-1 spray monitor.
  - Refer to the *CanWorks Junction Box* instruction sheet to connect the pressure transducer wires to the CanWorks junction box.

### 3. Replacing Transducer (contd.)



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Fig. 3 Replacing pressure transducer

1. Swivel stem

2. Transducer adapter swivel

3. Swivel stem O-rings

4. Locknut

5. O-ring

6. Pressure transducer

#### **4. Replacing Swivel Assembly O-rings**



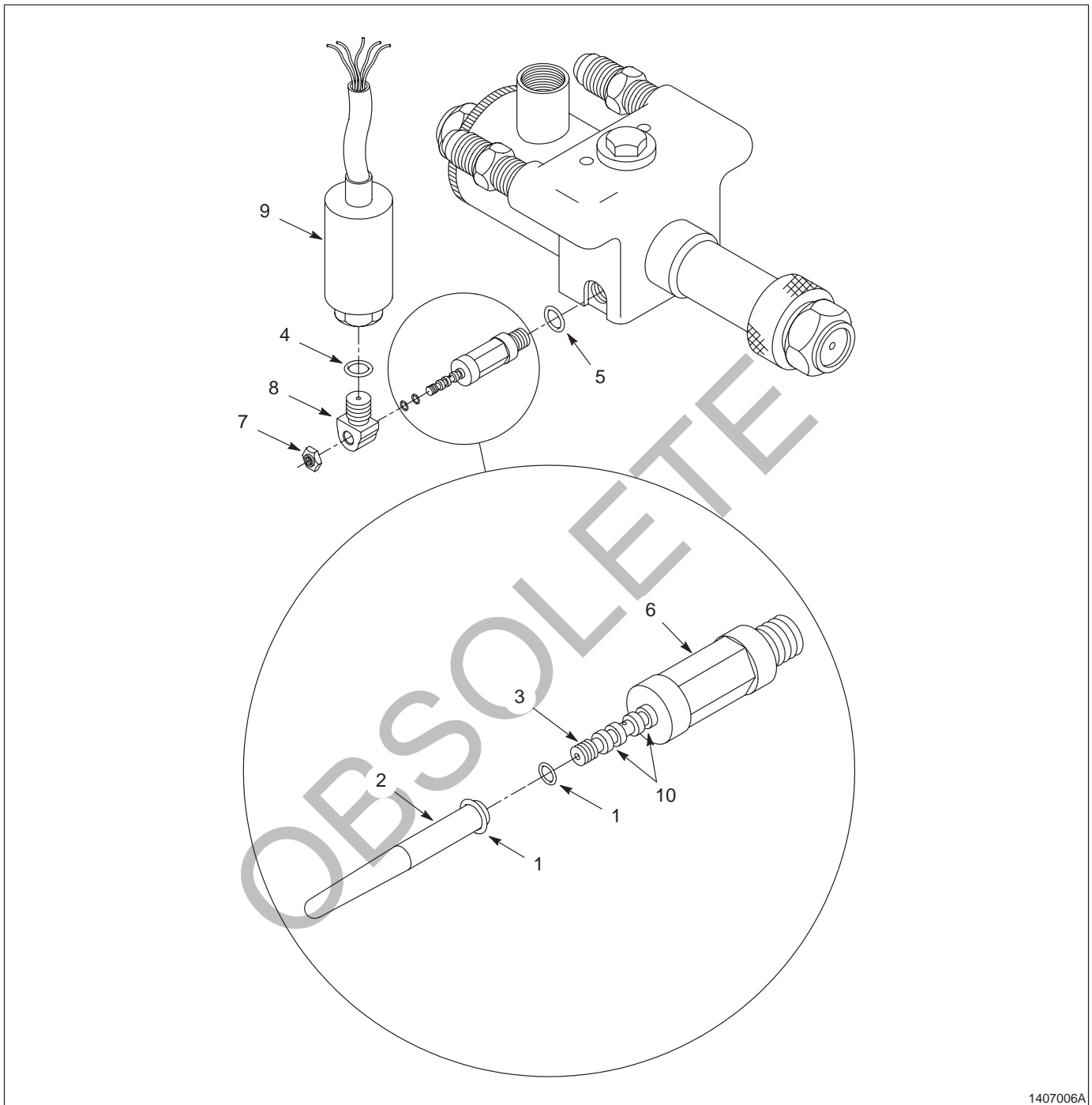
**WARNING:** To prevent injury to personnel and damage to equipment, disconnect and lockout power to the system. Relieve fluid and system pressure.

##### ***Removing O-rings***

1. See Figure 4. Remove the locknut (7) securing the transducer adapter swivel (8) to the swivel stem (6).
2. Remove the pressure transducer (9) and the transducer adapter swivel (8) from the swivel stem (6).
3. Remove the transducer adapter swivel (8) from the pressure transducer (9).
4. Remove the swivel stem (6) from the gun transducer port.
5. Remove the O-rings (1, 4, 5). Discard the O-rings.

##### ***Installing O-rings***

1. See Figure 4. Lubricate the O-rings (1, 4, 5) with the supplied lubricant.
2. Install the swivel stem shaft O-rings (1) onto the O-ring insertion tool (2).
3. Place the swivel stem shaft (3) into the O-ring insertion tool (2).
4. Slide the O-rings onto the swivel stem shaft O-ring grooves (10). Remove the O-ring insertion tool (2).
5. Install the remaining O-rings (4, 5).
6. Install the swivel stem (6) into the gun transducer port. Tighten securely.
7. Install the transducer adapter swivel (8) to the pressure transducer (9). Tighten securely.
8. Use the locknut (7) to install the pressure transducer (9) and the transducer adapter swivel (8) to the swivel stem (6). Do not tighten the locknut at this time.
9. Rotate the pressure transducer (9) to the desired position. Tighten the locknut (7).

**Installing O-rings** (contd.)

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**Fig. 4 Replacing O-rings**

- |   |  |                              |
|---|--|------------------------------|
| 1. Swivel stem shaft O-ring                               | 5. Swivel stem O-ring ( $\frac{3}{16}$ tube) | 8. Transducer adapter swivel |
| 2. O-ring insertion tool                                  | 6. Swivel stem                               | 9. Pressure transducer       |
| 3. Swivel stem shaft                                      | 7. Locknut                                   | 10. O-ring groove            |
| 4. Transducer adapter swivel O-ring ( $\frac{1}{4}$ tube) |  |                              |

**5. Pressure Transducer Kit  
Parts List**

See Figure 5.

Item	Part	Description	Quantity	Note
A	168 544	Transducer, 1500 psi, CanWorks	—	
A	179 455	Transducer, 600 psi, CanWorks	1	
1	-----	• Transducer	1	
2	945 044	• O-ring, hot paint	1	A
NOTE A: Included in both kits.				

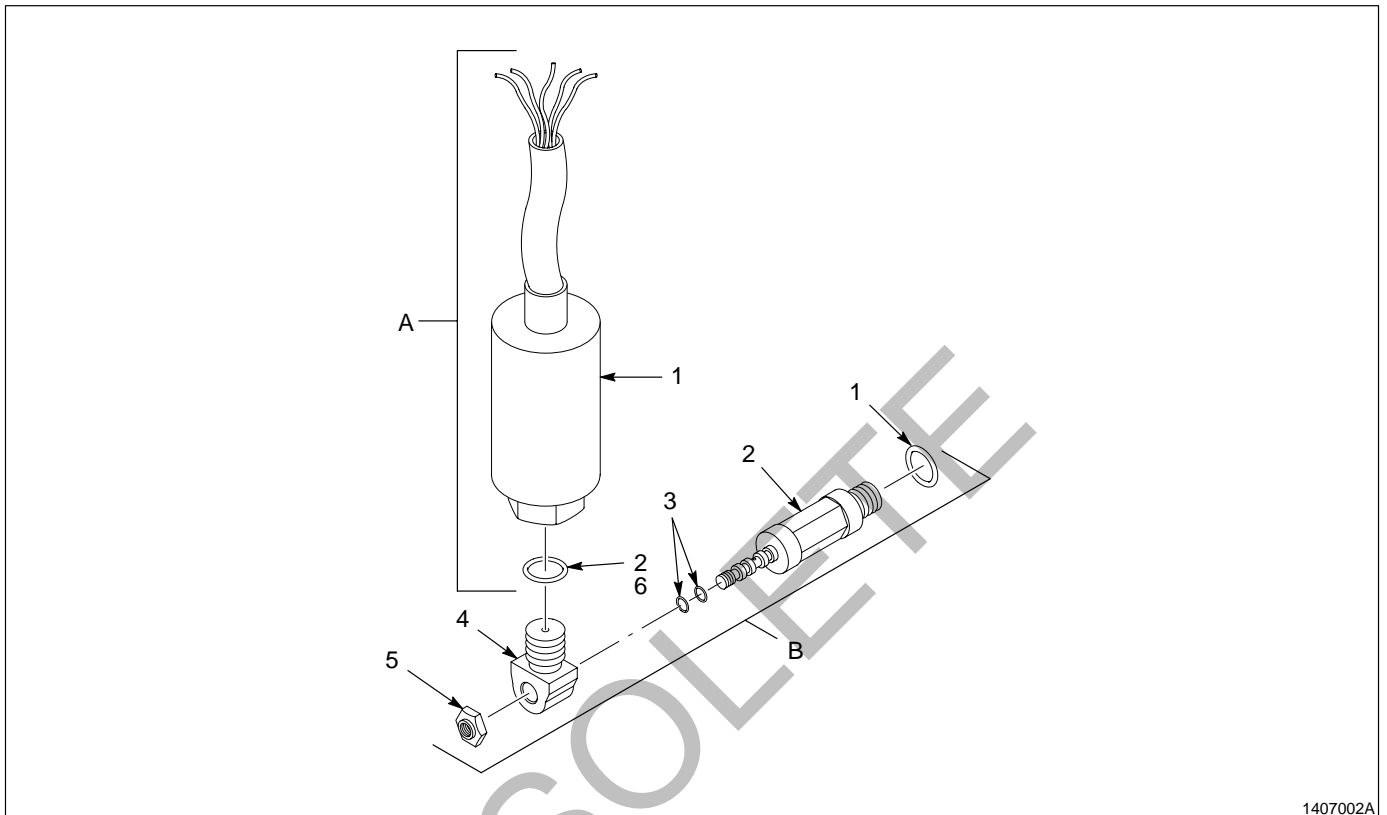
**6. Transducer Swivel  
Assembly Parts List**

See Figure 5.

Item	Part	Description	Quantity	Note
B	166 943	Swivel assembly, transducer	—	
1	945 020	• O-ring, hot paint $\frac{3}{16}$ OD, tube	1	
2	-----	• Stem, swivel, transducer	1	
3	940 061	• O-ring, hot paint, .125 x .250 x .0631	2	
4	-----	• Swivel, transducer, adapter	1	
5	984 133	• Nut, hex, lock, thin, $\frac{1}{4}$ -28	1	
6	945 044	• O-ring, hot paint	1	A
—	167 003	• Insertion tool, O-ring	1	
NOTE A: Included in both kits.				



**Pressure  
Transducer/Transducer Swivel  
Assembly Parts Illustration**



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Fig. 5 Pressure transducer/transducer swivel assembly parts

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