
Milltronics ILE-37 Sensing Head Diaphragm Replacement

Objective: The procedure for replacing the diaphragm on a Milltronics ILE-37 sensing head.

Equipment:

<ul style="list-style-type: none">• Milltronics ILE-37• Replacement diaphragm• 1 3/4" or 45 mm wrench, or adjustable wrench	<ul style="list-style-type: none">• 10 mm wrench• 6 mm hex screwdriver or Allen key• 5 mm Allen key• 2.5 mm hex screwdriver or Allen key
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While every effort was made to verify the following information, no warranty of accuracy or usability is expressed or implied.

Overview:

To replace the diaphragm on a Milltronics ILE-37, please follow the directions below.

For an ILE-37 that does not have an LVDT conditioner card, skip *Part One: Step Four* and *Part Two: Step Three*

Part One: Remove Diaphragm

Step One: Remove Fiberglass Cover

1. Use 6 mm hex screwdriver or Allen key to loosen the four bolts connecting the fiberglass cover to the main body.
2. Remove the four bolts and washers.
3. Remove fiberglass cover.

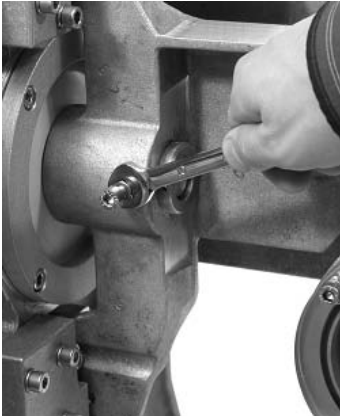


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Step Two: Remove Sensing Plate

- 1. Use 10 mm wrench to loosen the nut holding the set screw in place.
- 2. Use 5 mm hex screwdriver or Allen key to loosen the set screw.
- 3. Remove the sensing plate by twisting shaft back and forth, while pulling outward.



CAUTION: Do not use hammer or excessive force!

Step Three: Remove Bushing Lock Nuts

- 1. Use 1 3/4" or 45 mm wrench, or adjustable wrench to remove the two bushing lock nuts, one at a time.
- 2. Remove protective plastic ring.



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Step Four: Remove LVDT Conditioner Card

1. Use 2.5 mm hex screwdriver or Allen key to remove the two screws, using your free hand to steady the LVDT conditioner card.
2. Remove two nylon washers and two metal spacers.
3. Remove LVDT conditioner card and place on a dry, secure surface.



CAUTION: Do not touch circuitry on LVDT conditioner card!

Step Five: Separate Inner Diaphragm Ring from ILE-37 Body

1. Use 5 mm Allen key to remove the four screws connecting the inner diaphragm ring to the ILE-37 body.
2. Separate the inner diaphragm ring from the ILE-37 body.



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Step Six: Remove Diaphragm

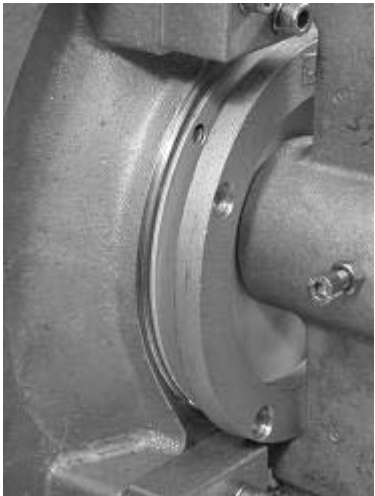
1. Gently pinch the diaphragm on sensing head side.
2. Pull the diaphragm outward to remove.



Part Two: Replace Diaphragm

Step One: Insert New Diaphragm

1. Place the new diaphragm around the sensing head shaft socket and push through to the opposite side.
2. Adjust the position of the new diaphragm, so that it is flat against the ILE-37 body.
3. Line up the holes of the new diaphragm with the holes on the ILE-37 body.



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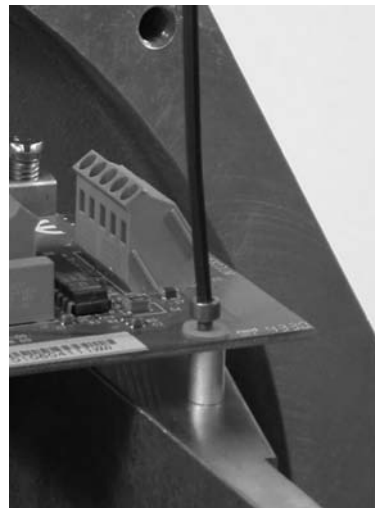
Step Two: Secure Inner Diaphragm Ring

1. Line up the holes of the inner diaphragm ring with the holes of diaphragm and the holes on the ILE-37 body.
2. Replace the four screws that connect the inner diaphragm ring to the ILE-37 body.
3. Use 5 mm Allen Key to firmly tighten the four screws.



Step Three: Replace LVDT Conditioner Card

1. Place metal spacers vertically over the screw holes.
2. Line up holes on LVDT conditioner card with the holes of the spacers.
3. Replace the two nylon washers over the holes on the LVDT conditioner card.
4. Use 2.5 mm Allen key to replace the two screws.



CAUTION: Do not touch circuitry on LVDT conditioner card

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Step Four: Replace Bushing Lock Nuts

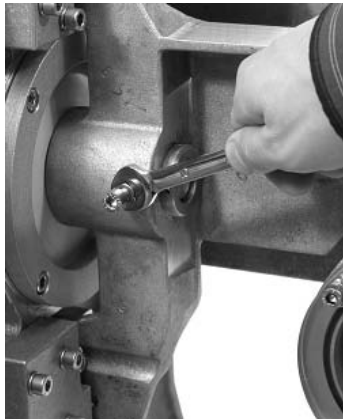
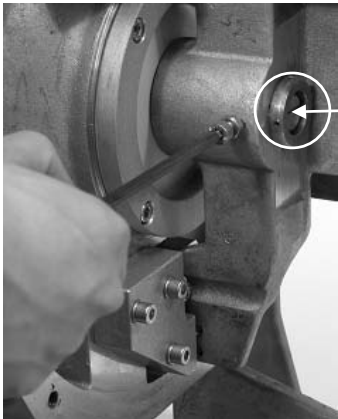
1. Replace protective plastic ring on sensing plate side.
2. Replace the first bushing lock nut.
3. Hand tighten the first bushing lock nut, until it is snug against the protective ring.
4. Replace second bushing lock nut.
5. Use 1 3/4" or 45 mm wrench, or adjustable wrench to firmly tighten the second bushing lock nut.



CAUTION: Do not over tighten!

Step Five: Replace Sensing Plate

1. Place shaft of sensing plate into sensing head shaft socket.
2. Push inward and twist sensing plate until it cannot move further.
3. Line up channel at end of sensing plate shaft with roll pin and push shaft into place.
4. Use 5 mm hex screwdriver or Allen key to tighten the set screw.
5. Use 10 mm wrench to tighten the nut holding the set screw in place.



CAUTION: Do not use hammer or excessive force!

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Step Six: Replace Fiberglass Cover

1. Replace the fiberglass cover.
2. Line up the holes of the fiberglass cover with the holes in the main body.
3. Replace the four screws and washers that attach the fiberglass cover to the unit.
4. Use 6 mm hex screwdriver or Allen key to tighten the four screws.

