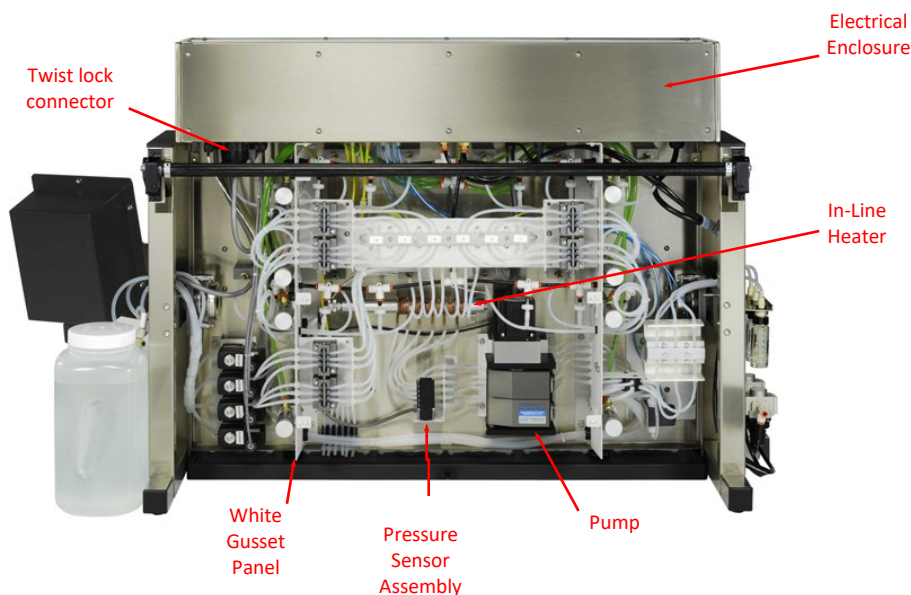
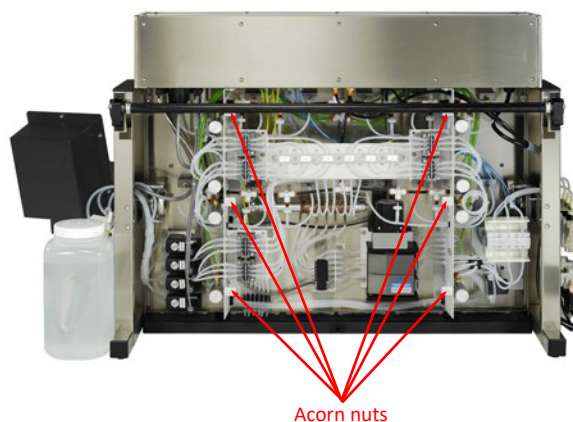


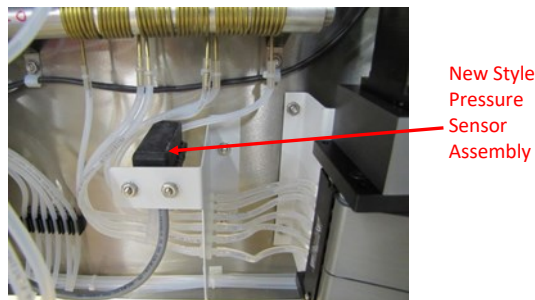
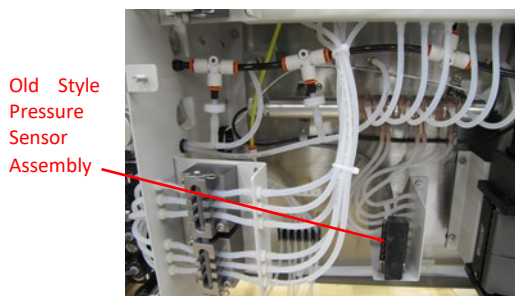
To replace the Pressure Sensor Assembly on the ANKOM<sup>TDF</sup> Dietary Fiber Analyzer, follow the steps below. **Note:** The following items will be sent in a replacement package: New Pressure Sensor Assembly, 2 hex nuts with star washers 10/32 (167), 8 cable ties (Z10).



1. Prepare the instrument for service.
  - a. Power off the instrument.
  - b. Remove the back panel of the TDF instrument by removing the six acorn nuts on the back clear panel.
  - c. Locate the Pressure Sensor Assembly.



**Note:** This procedure shows the installation of a new style bracket for the Pressure Sensor Assembly which can replace the old style assembly.

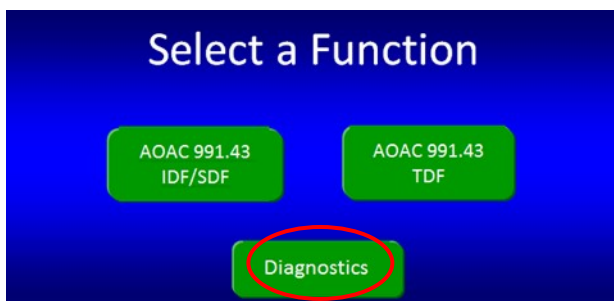


2. Perform a QC Test of the new Pressure Sensor just prior to installation (This ensures that there has been no damage during shipping and that the new part will resolve the problem).



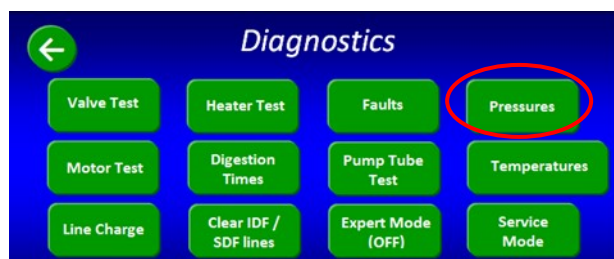
- a. Disconnect the twist lock electrical connector. Unscrew the black twist lock connector and disconnect it from the underside of the electrical enclosure.

- b. Connect/plug the new 9-pin connector at the end of the Pressure Sensor cable into the underside of the Electrical Enclosure in place of the old one.



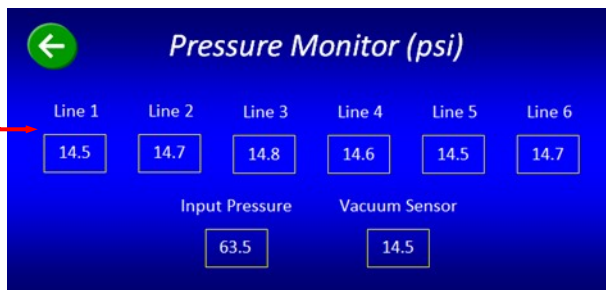
- c. When the instrument is powered up, the "Select a Function" screen will show on the Touch Screen Display.

- d. Press the "Pressures" button on the Display. This will bring up the "Pressure Monitor (psi)" screen.



- e. Confirm that the pressure readings for all 6 lines read approximately 14.7psi at sea level (a range of 0.5psi is acceptable).

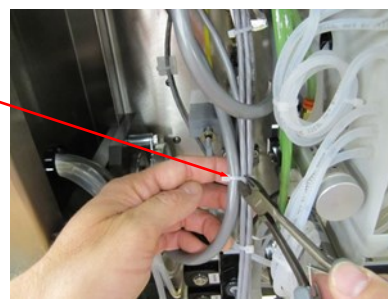
- f. Once it has been confirmed that the new pressure sensor readings are acceptable, proceed with the following steps to disconnect the new pressure sensor and begin installation with step 3.



3. Loosen the twist lock electrical connector cable.

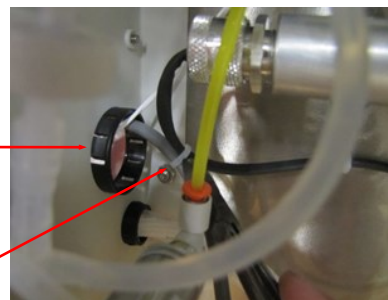
- a. On the left side of the back of the instrument, carefully cut off the middle cable tie that holds the twist lock electrical cable together with the chemical valve cables. Be careful not to damage the cable insulation.

- b. When facing the back of the instrument, cut off the cable tie to the right of the large grommet located in the white gusset panel. Be careful not to damage the cable insulation.



Grommet

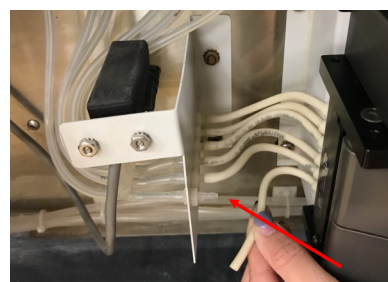
Cable tie



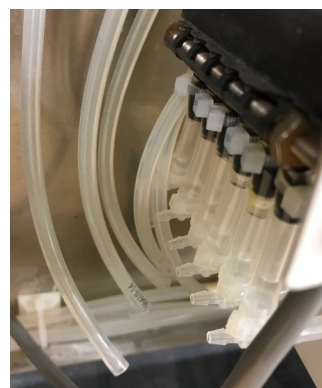
4. Pull the cable through the grommet. Pull the gray Pressure Sensor Assembly cable out of the large grommet in the white gusset panel.



5. Disconnect the six Norprene tubes from the barbs on the right side of the Pressure Sensor Assembly. NOTE: Place a towel underneath the Pressure Sensor Assembly to catch any water that may leak from the tubes.

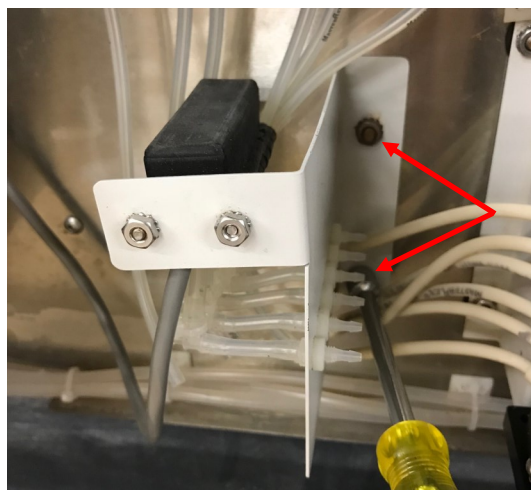


6. Disconnect the six silicone tubes from the barbed T-fitting on the left side of the Pressure Sensor Assembly.





7. Using a 3/8" nut driver, remove the two star washer nuts from the front panel of the Pressure Sensor Assembly and remove the Pressure Sensor Assembly from the instrument. Set aside the star washer nuts for re-use on the new pressure sensor bracket installation. Secure the new Pressure Sensor Assembly to the front panel using the two star washer nuts and a 3/8" nut driver.



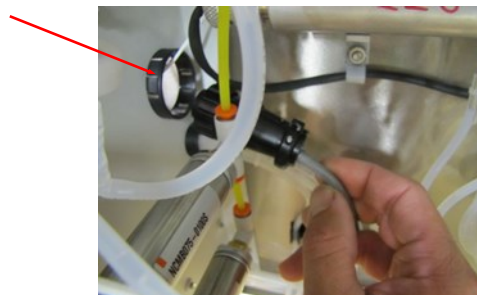
8. Reconnect the six Norprene tubes from the Peristaltic Pump to the barbs on the right side of the Pressure Sensor Bracket, starting with the ones farthest from the technician. Carefully slide the tube ends onto the barbs, ensuring that the barb goes through the center of the tube and slowly push it on so as not to cut the inside or edge of the tubing.



9. Reconnect the six silicone tubing coming from the brass tubing on the In-Line Heater to the left side of the pressure sensor on the barbed T-fittings.



10. Feed the gray electrical cable from the pressure sensor through the large grommet in the white gusset panel.



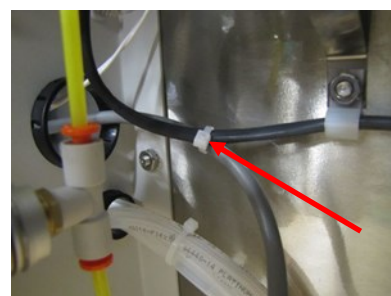
### 11. Reconnect the twist lock connector.

- a. Connect the twist lock connector to the underside of the electrical enclosure by spinning it until the main pin (as shown by the arrow) fits into place.
- b. Twist the outer ring clock-wise to lock the connector securely into the fitting shown in step #3.



### 12. Secure the cables.

- a. Cable tie the twist lock connector to the chemical valve cables (according to original configuration - 7 cables together).
- b. Carefully cut off the excess from the cable tie without damaging the cable insulation.
- c. Install a cable tie around the black In-Line Heater cable and the gray Pressure Sensor Assembly cable.
- d. Carefully cut off the excess from the cable tie without damaging the cable insulation.



13. AFTER the installation of the new Pressure Sensor Assembly, follow steps a-i below to perform a QC pump tube test.

a. When the instrument is powered up, the “Select a Function” screen will show on the Touch Screen Display.

b. Press the “Diagnostics” button on the Display. This will bring up the “Diagnostics” screen.

c. Connect the Flush Tube Assembly with a full water container hooked up to the middle connector and Press the “Line Charge” button. This will bring up the “Line Charge” screen.

d. Press “All”. This will perform a line charge on all of the lines.

e. Press the back arrow button in the top left of the display screen to go back to the “Diagnostics” screen.

f. From the “Diagnostics” screen, Press the “Pump Tube Test” button. This will bring up the “Pump Tube Test” screen.

g. Press the “Start” button.

h. Press “Continue (line charge)” button. This will perform one more line charge for a total of two preliminary line charges before the pump tube test is performed.

i. Confirm passing results of the Pump Tube Test. (Pass  $\geq$  8, typical with new pump tubes is 15-23psi). Confirm that there are no leaks in back of instrument, especially at the connections to the new Pressure Sensor.



14. Replace the clear back panel of the TDF instrument by re-securing it with the six acorn nuts removed in step #1. With this completed you are now ready to return your TDF instrument to service.