

This procedure shows how to replace one of the liquid sensors (1-4).

Use tool kit supplied with instrument:

3mm Tee Handle Hex  
Wrench (part #9487)

1/8" Hex Driver  
(part #Z303)

14mm Open End  
Wrench (part #9485)

Hex Wrench Set  
(part #9486)

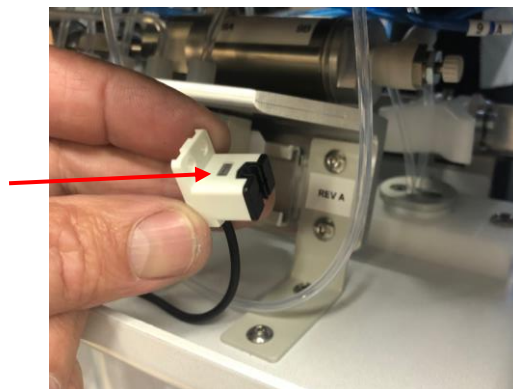


1. Remove the front access panel. Use the 1/8" hex driver to remove the four screws on the front access panel, then remove the panel.

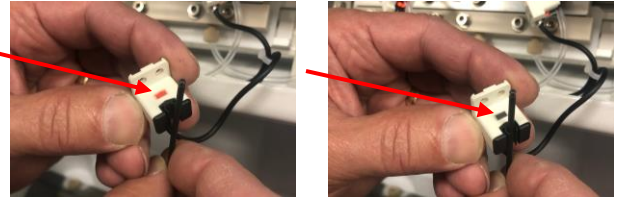
(Power must be on to diagnose sensor.)



2. To verify that the problem liquid sensor needs to be replaced, gently pull off the liquid sensor from the tube. Observe to see if the light turns on. If it does not, it needs to be replaced.



If the light is on, place the 5/64 hex wrench from the tool kit in the tubing guide and the light should turn off.

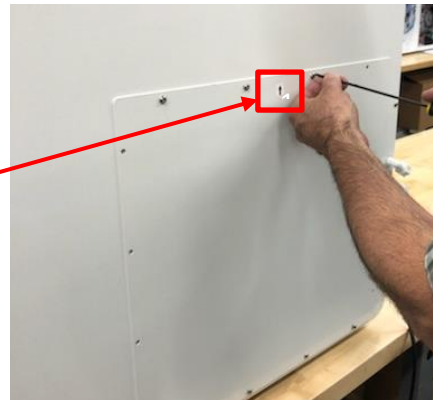


If the sensor does not function as described, then it will need to be replaced. The number on the back of the sensor will indicate which one it is.

3. From the HMI home screen, press the lock icon to shut down the computer. Next turn off the power switch and unplug the instrument.

4. Use a 1/8" hex driver to remove the (16) electrical panel screws from the back of the Instrument. Next remove the panel.

**IMPORTANT:** Maintain the same top edge orientation when the panel is reinstalled. The arrow on the panel indicates which edge is on top.



5. Use an adjustable wrench to slightly loosen the hex nut on the rear panel nitrogen fitting while keeping the nitrogen connected.



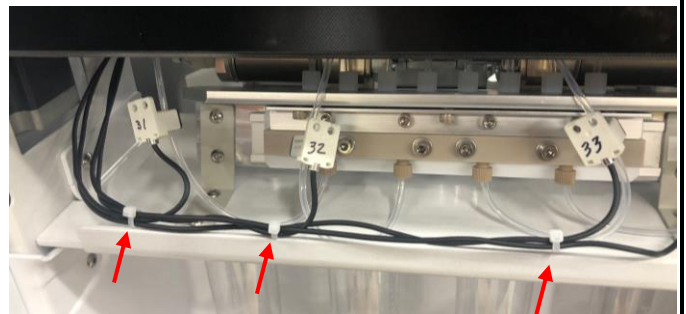
6. Using the same 1/8" hex driver, remove the (20) rear panel screws from the back of the instrument.



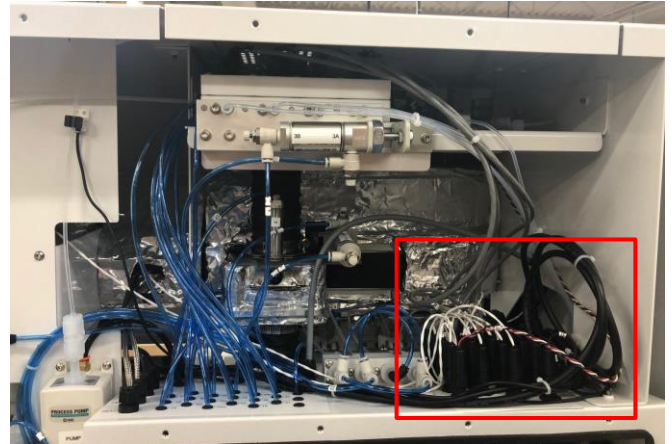
7. Slide the nitrogen fitting out of the slot in the rear panel and remove the panel from the instrument.



8. To replace the liquid sensor, cut the zip ties as required.



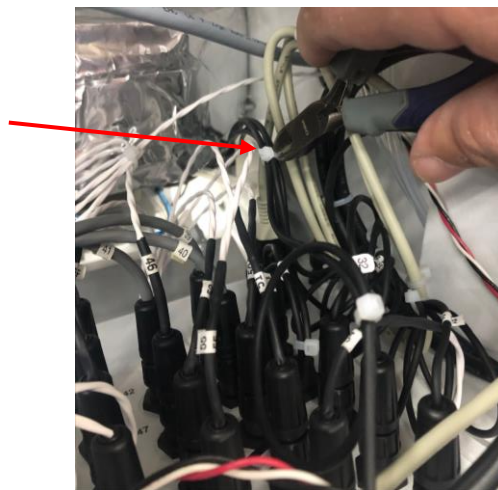
9. Go to the back of the instrument and locate the liquid sensor connectors in the upper right of the instrument.



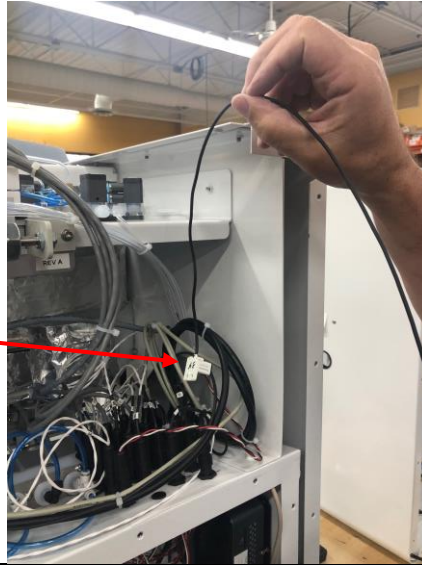
10. Locate the connector number that matches the failed sensor. Rotate the lower end of the connector counterclockwise approximately 1/2 turn to unlock it and then pull it up.



11. Cut the zip tie holding the wires together.



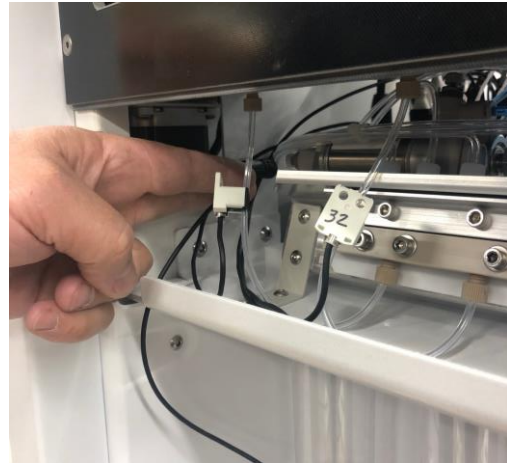
12. Gently feed the liquid sensor through the instrument to be pulled out the back.



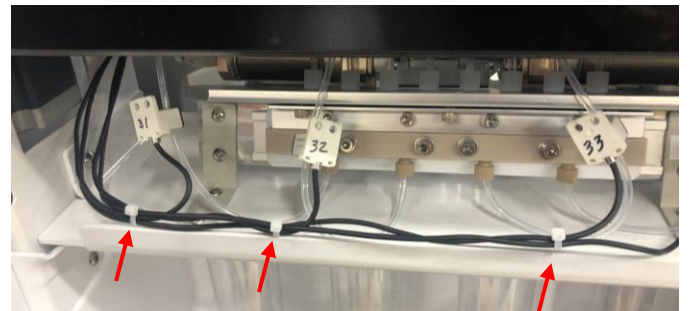
13. Install new liquid sensor. Gently clip the sensor onto the tube in the front of the instrument. Make sure the tubing properly enters the black plastic clip.



14. Feed the wire through the instrument, following the other liquid sensor wires. Do not screw in the connector yet.



15. Before screwing in the new connector, re-apply any zip ties that were removed.



16. Screw the new connector in the back of the instrument.

Make sure to line up the groove on the connector to the extended groove on the mounted connector. For reference, the grooves face the back of the instrument. Push the connector in and rotate the lower end clockwise approximately  $\frac{1}{2}$  turn to lock it in place.



17. Turn on the instrument and repeat step 2 to verify that the sensor is working properly.

18. Once the liquid sensor has been confirmed to work, reinstall the back and the front panels.