How to Replace Capillary Sensor Cover

Applies to the following: ALL SQA-V (V, Vb, Ve, Vp and Vt)
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Introduction: ESD protection notes

1. The Optical Block is EXTREMELY ESD sensitive; therefore ESD protection measurements must be taken when installing the capillary sensor cover (which is part of the Optical Block in the SQA-V).

   Please Note: The warranty will be voided if ESD protection is not used.

2. Before starting to work, it is imperative that the environment and workstation include the following to protect components and assemblies sensitive to electrostatic discharge:
   - Grounded workstation and anti-static work surface mat.
   - Wrist strap for worker (See figure below).

Figure: ESD protection

Instructions:

1. Release the screws from the rear panel using a #2 Philips screwdriver (Fig. 1) and open the SQA-V (Fig. 2).	 Fig. 1: Release screws  Fig. 2: Open the SQA-V
2. Use a #2 Allen key to remove the four screws connecting the optical column to the front panel of the SQA-V (Fig. 3).	 Fig. 3: Unscrew the optical column

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3. Carefully pull out the optical assembly in order to release it from the front panel (Fig. 4).

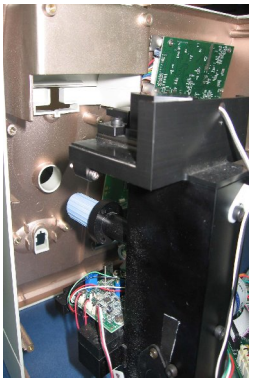

Figure 4: Release the optical assembly

4. Place the optical assembly on its side.
5. Release the screw holding the capillary sensor using a #2 philips screwdriver (see fig. 5)

Figure 5: Release the capillary sensor screw

6. Take the cover out of the package while wearing latex gloves (without powder).

   Important note: The capillary sensor cover is made of optical film and is very sensitive. If the film is touched with bare hands, fingerprints could impact the transparancy of the film.
7. Slightly press the cover in order to crease it into a more defined, folded shape (see figure 6)

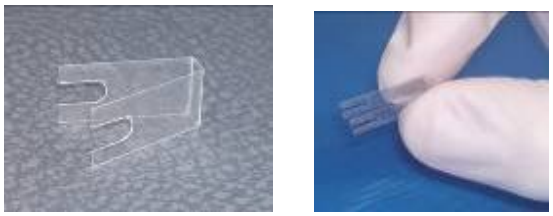

Figure 6: Fold the capillary sensor cover

8. Install the cover on the capillary sensor (see figure 7).

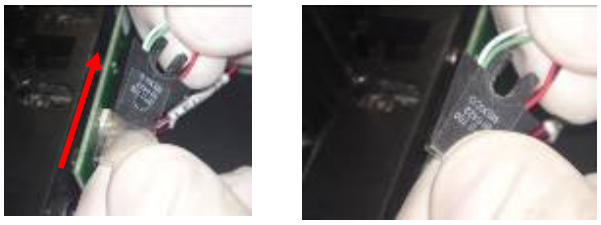

Figure 7: Install the capillary sensor cover

9. Insert the covered sensor into the designated location at the bottom of the optical block (see figure 8)

Figure 8: Insert the cover sensor into the optical block

10. Insert the screw + washer into the covered sensor and partially turn the screw (not all the way). Make sure that the the covered sensor can still move freely after closing the screw (see figure 9)

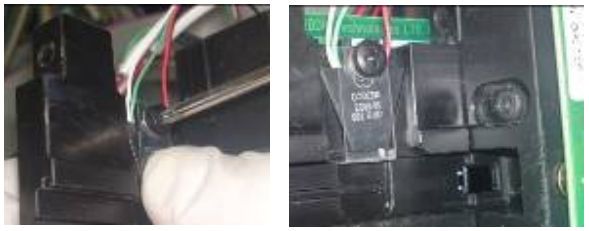

Figure 9: Partially close the screw

11. Hold the cover and push it back towards the sensor (in the direction of the wires) until there is no gap between the front area of the sensor and the cover (see figure 10).

    Note: The front area of the sensor must be attached to the cover

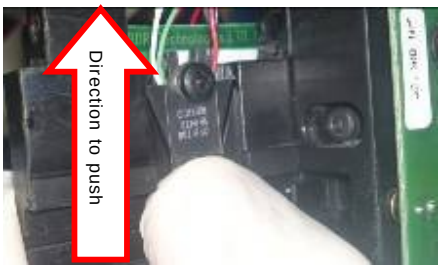

Figure 10: Push the cover until there is no gap between the cover and the sensor

12. Push the sensor to the front while holding the wires. Push until the covered sensor cannot be pushed further- that is the final location of the covered sensor (see figure 11).

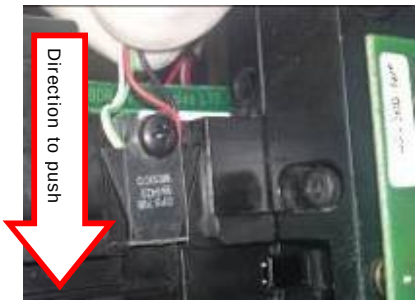

Figure 11: Push the covered sensor forward

13. Tightly close the capillary sensor screw, verify that the sensor and the cover cannot move and that they are completely attached to each other in the front area (see figure 12).

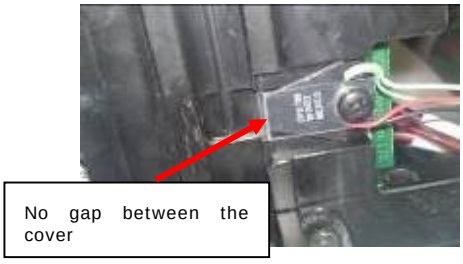

Figure 12: Final location of the covered sensor

14. Attach the optical column to the front panel of the SQA-V using the original 4 screws (see Fig. 3 above).
15. Close the back, front and rear panels of the SQA-V using a #2 philips screwdriver (see Fig. 1 above).