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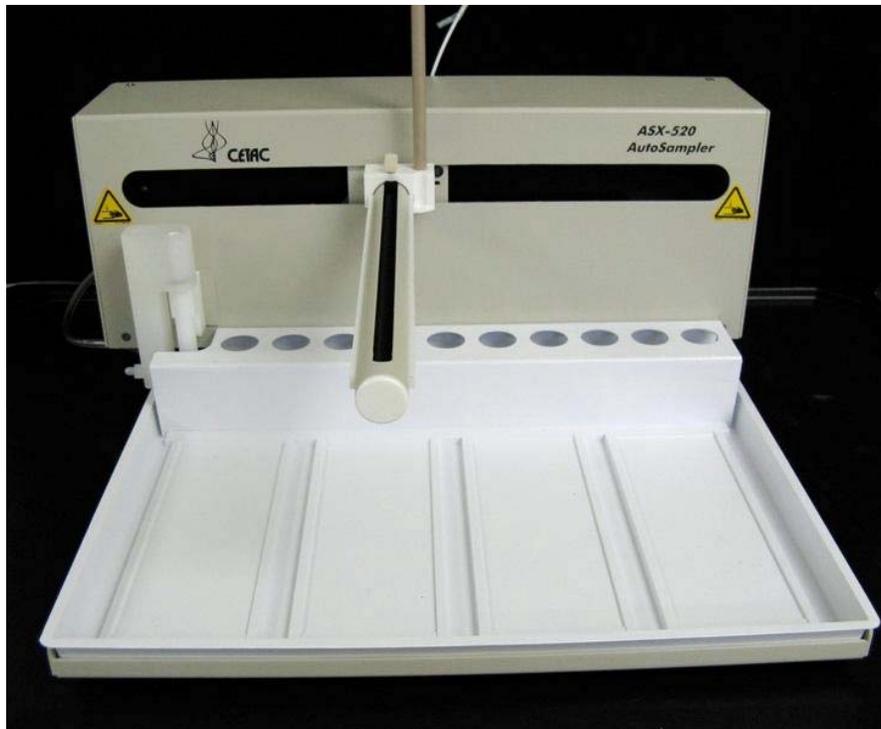
  

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**Pump replacement for  
ASX-520/ASX-520HS (SP7002A)**

**NOTE:**

MAKE SURE THE UNIT IS UNPLUGGED AND IN THE "OFF" POSITION BEFORE BEGINNING THIS PROCEDURE.

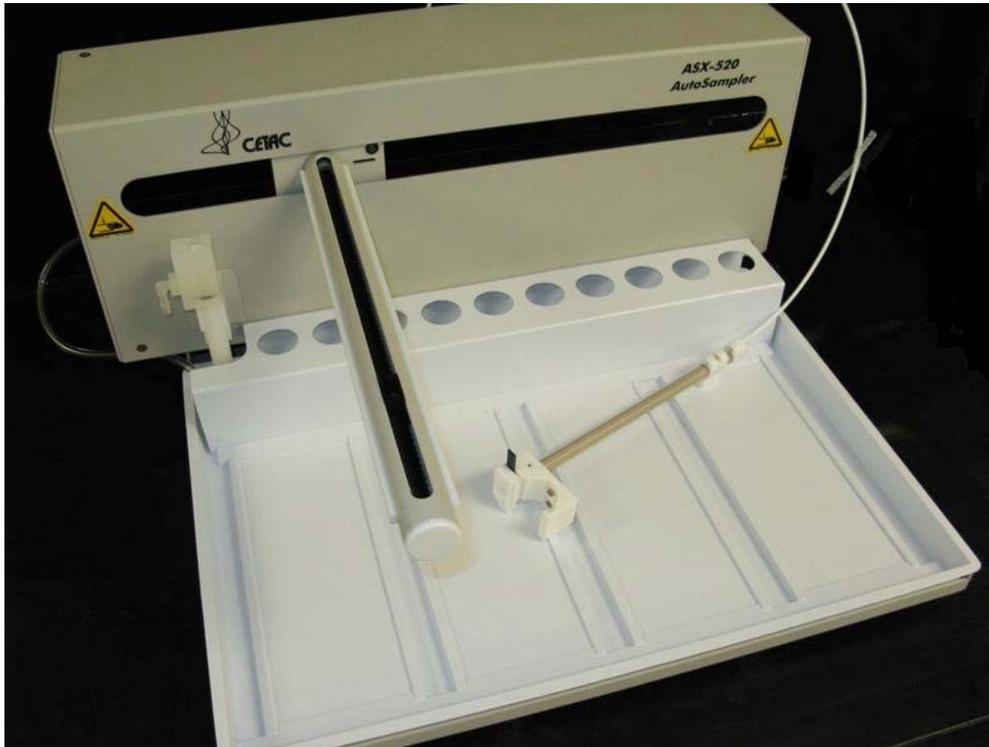


**Figure 1-1.** Front view of ASX-520.

1. First, remove the two Kynar thumbscrews from the Y-axis home block. See Figure 1-2.



**Figure 1-2.** View of Y- axis home block with Kynar thumbscrews.



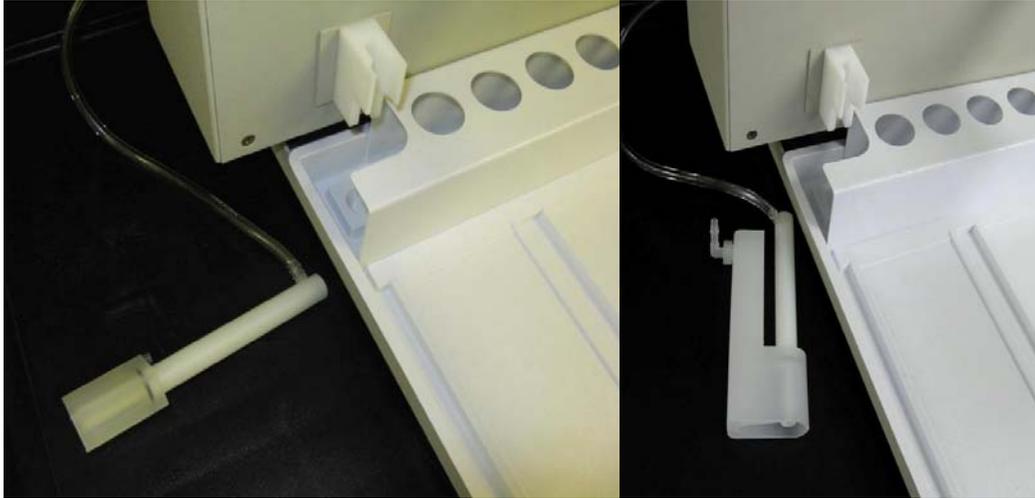
**Figure 1-3.** Z-drive removed from arm assembly.

2. Next, remove the whole Z-drive assembly from the arm by pulling the whole Z-drive assembly forward and off the Auto Sampler arm. See Figure 1-3.
3. After the Z-drive assembly is removed, then remove the rinse station. See Figure 1-4. Turn the rinse station  $\frac{1}{4}$  turn counter-clockwise while pulling up. Also, the tubing located at the bottom of rinse station will have to be removed or moved aside. See Figure 1-5.



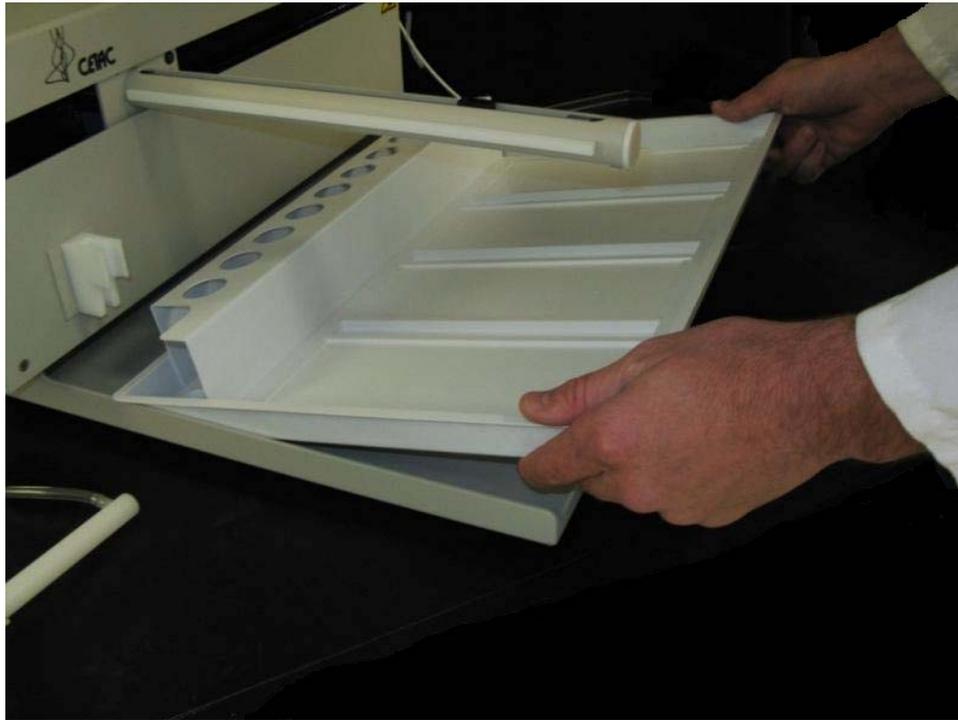
**Figure 1-4.** View of rinse station.

4. Some Auto Samplers may have a different rinse station, although they both connect the same. See figure 1-5.

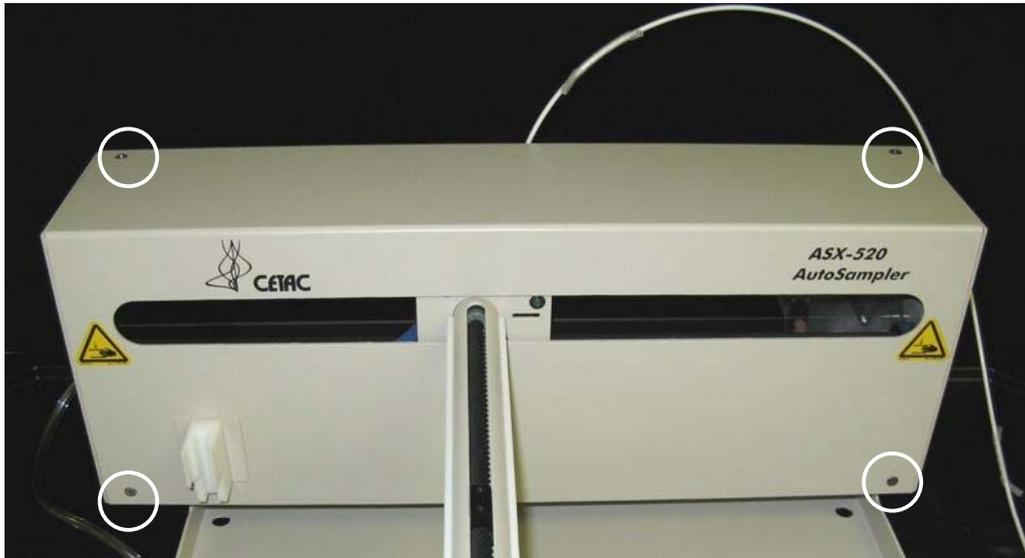


**Figure 1-5.** View of rinse stations removed from the front cover.

5. The Auto Sampler tray is next to be removed. Lift up the tray and pull forward. See Figure 1-7.

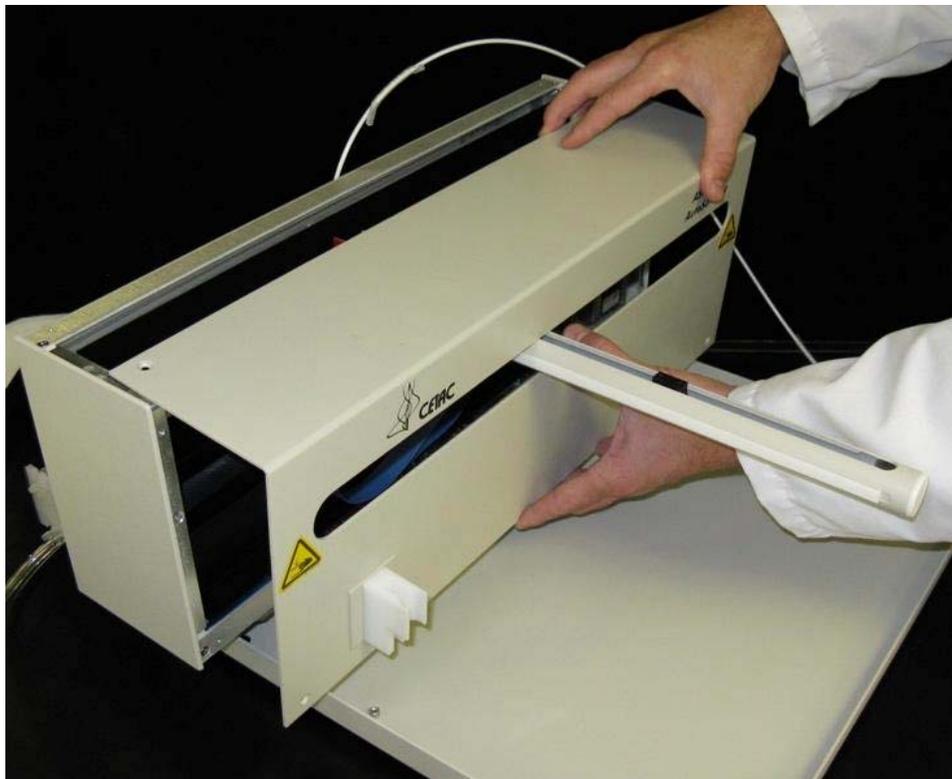


**Figure 1-7.** Removing the tray.

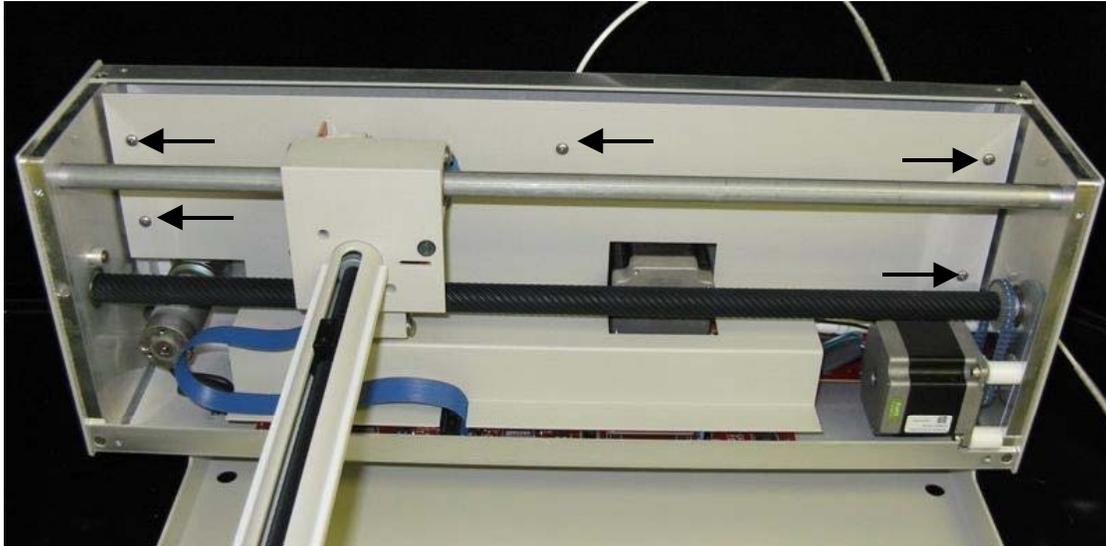


**Figure 1-8.** Front view of ASX-510 Auto Sampler showing front cover screws.

6. Next, the front cover needs to be removed. Remove the four corner screws shown in Figure 1-8.
7. The front cover can be removed by lifting it slightly and pulling forward. See Figure 1-9.



**Figure 1-9.** View of ASX-520 Auto Sampler with the front cover being removed.



**Figure 1-10.** View of inner shield inside the ASX-520 (old shield).

8. The five screws that hold the inner shield will have to be removed. Move the Y-axis assembly all the way to the left. See Figure 1-10. If you have a newer two piece shield and splashguard proceed to step 10.
9. The inner shield can be removed by lifting it up while pulling forward. See Figure 1-11.

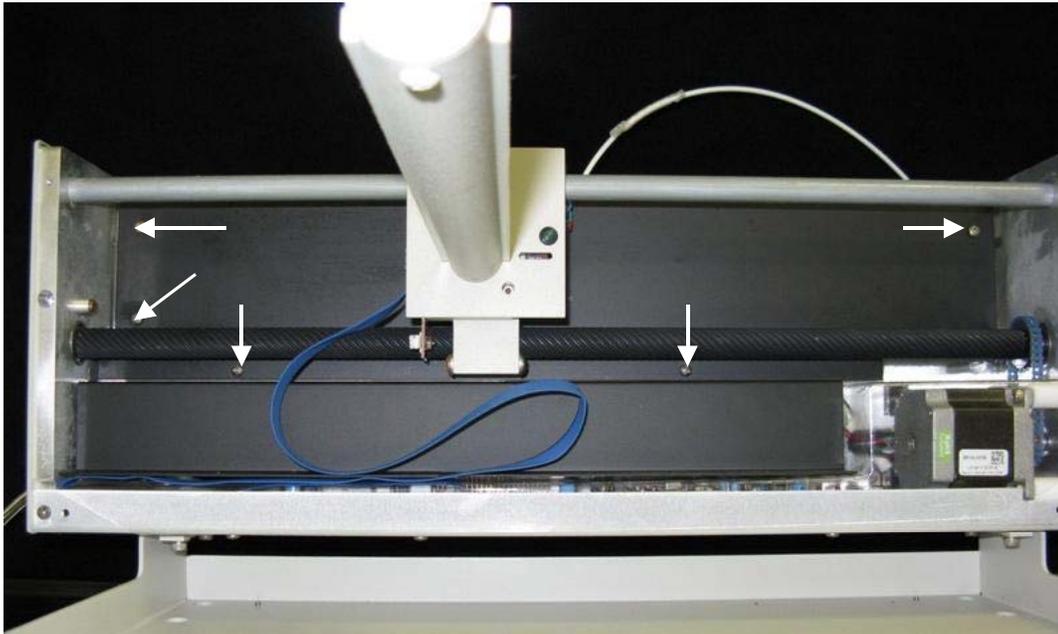


**Figure 1-11.** Removal of inner shield.



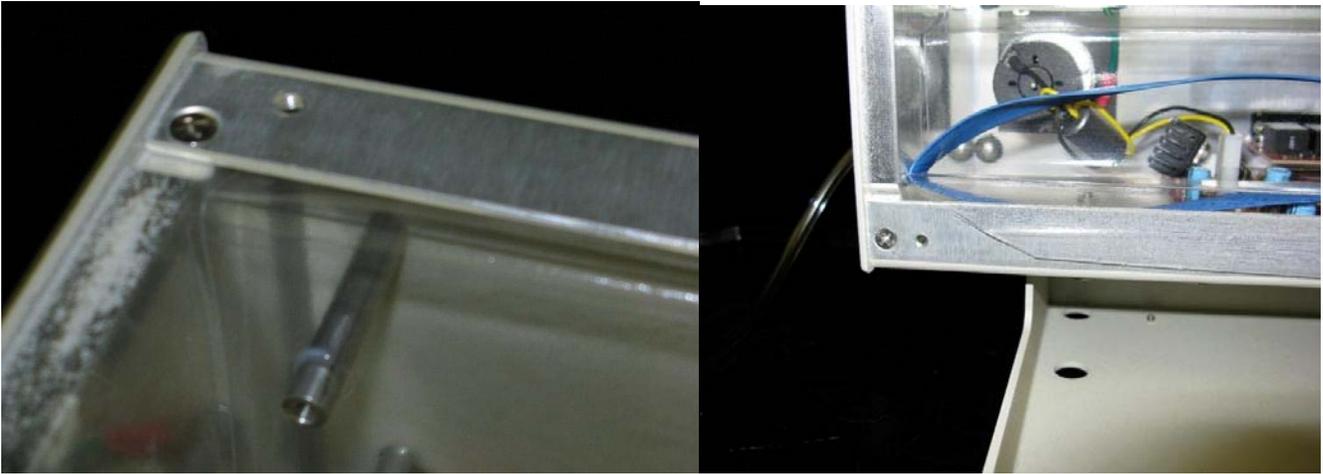
**Figure 1-12.** View of ASX-520 with inner shield removed.

10. If you have a newer shield/splash guard combination proceed as follows. Locate and remove the 5 screws holding the shield in place. See Figure 1-13.



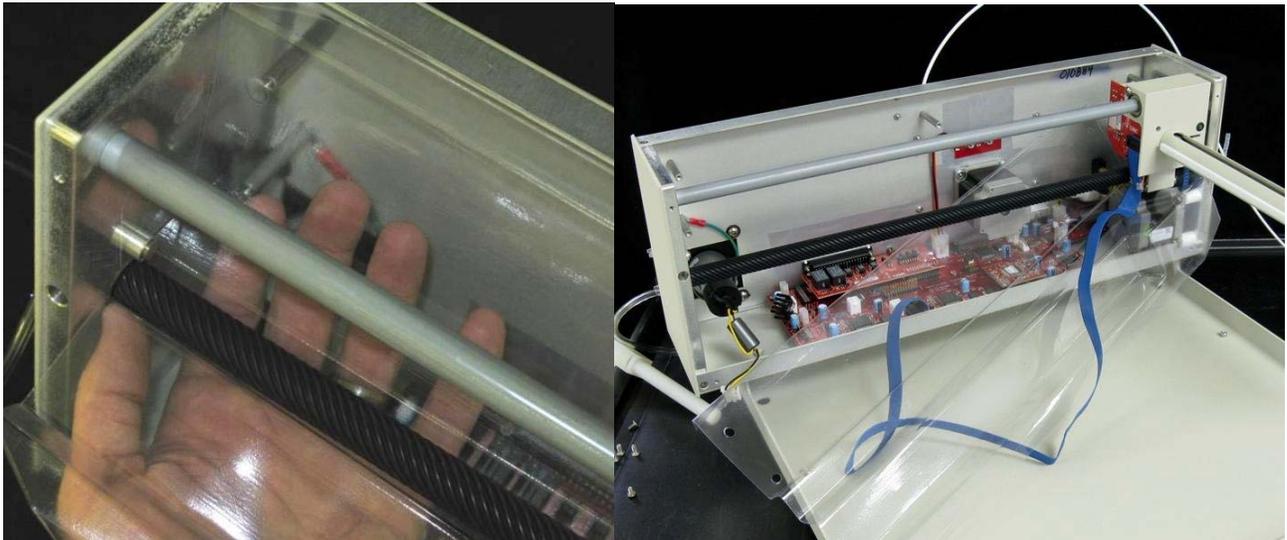
**Figure 1-13.** View of new shield and splashguard inside the ASX-520.

11. Remove the two shield pieces. Notice that the splashguard goes under the chassis on the top and over the chassis on the bottom. See Figure 1-14. When you replace the splashguard, ensure it is oriented in this manner.



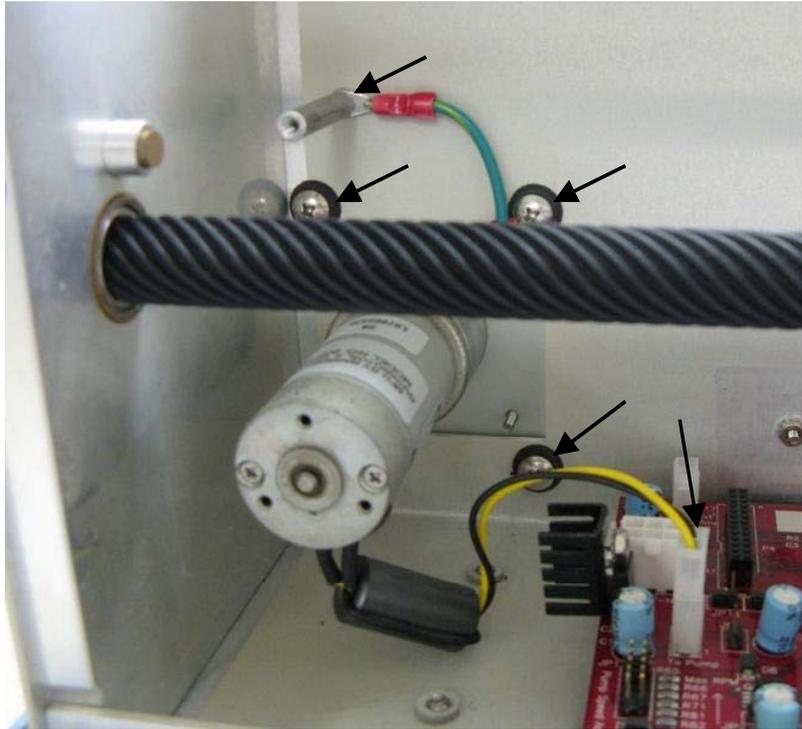
**Figure 1-14.** View of splashguard placement.

12. Remove the splashguard by pulling it out from one side. It may be necessary to reach under the guard and remove it from the support stand offs. See Figure 1-15.



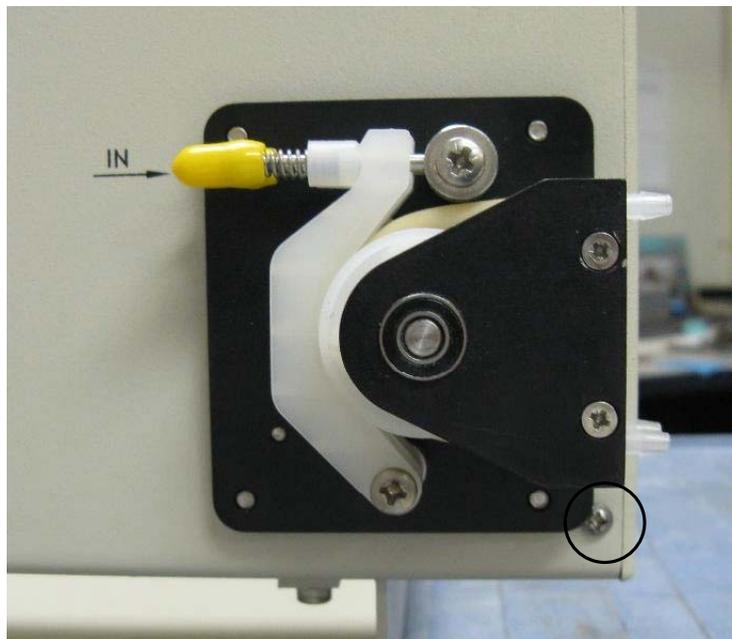
**Figure 1-15.** View of splashguard removal.

13. The pump is now accessible. Remove the old pump by unplugging the power connection; unbolt the grounding wire, and removing the four mounting screws. See figure 1-16. The screws are installed with locktite so if they are difficult to remove, apply heat to the front to loosen the locktite.



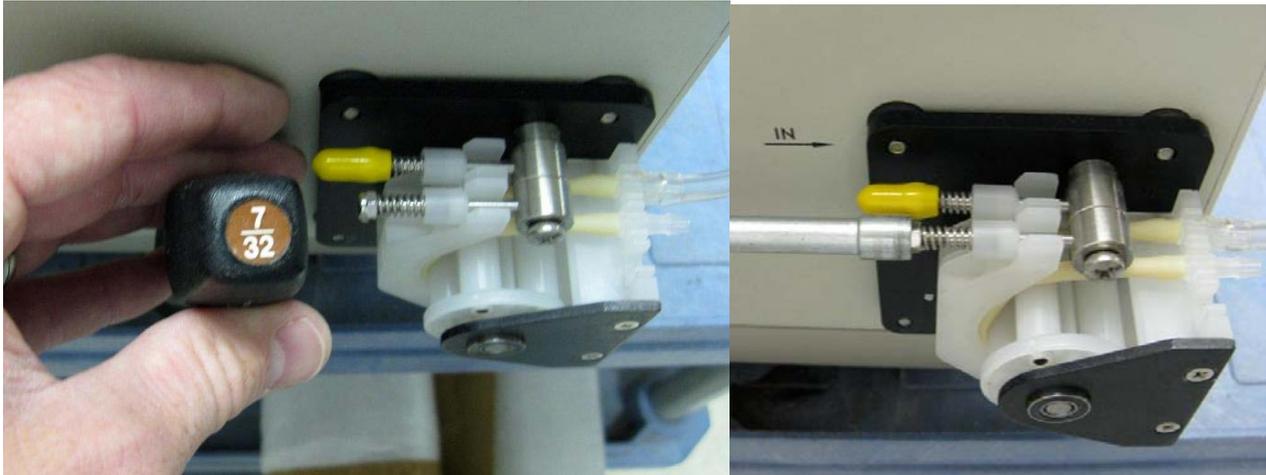
**Figure 1-16.** View of the old pump assembly.

14. Remove the bottom end plate screw and replace with one provided. Install the new pump assembly oriented as shown in Figure 1-17. Reconnect the power, ground wire, and mounting screws. It may be necessary to replace grommets with new ones provided.



**Figure 1-17.** New Pump with end plate screw circled.

15. Tighten the mounting screws just past the point where the grommets begin to compress. The mounting screws are generally close to flush with the pump faceplate. The end plate screw that is replaced allows removal of the screw without scratching the pump.
16. Pump rotation is counter clockwise, which is the opposite as before. If your Autosampler has older silk-screening, the arrow indicator may be pointing the wrong way, however the in channel is still on top.
17. Occasionally the pump rollers and pressure shoes may begin to wear. There is some self-adjustment inherent to the design, however further adjustment may be necessary. Adjustment of the pressure shoe can be done by removing the yellow covers, and adjusting the 7/32-inch lock nut with a nut driver or wrench. See Figure 1-18.



**Figure 1-18.** Adjustment of the pressure shoe.

18. Replace the splashguard, if equipped, taking note to orient the edges as seen before. Also route the blue ribbon cable under and to the left end, then up.
19. Replace the shield. Route the blue ribbon cable through the notch in the shield.
20. Replace the cover, tray; rinse station, z-drive assembly, and racks.
21. Finish plumbing the new pump and test for leaks before returning to service.