

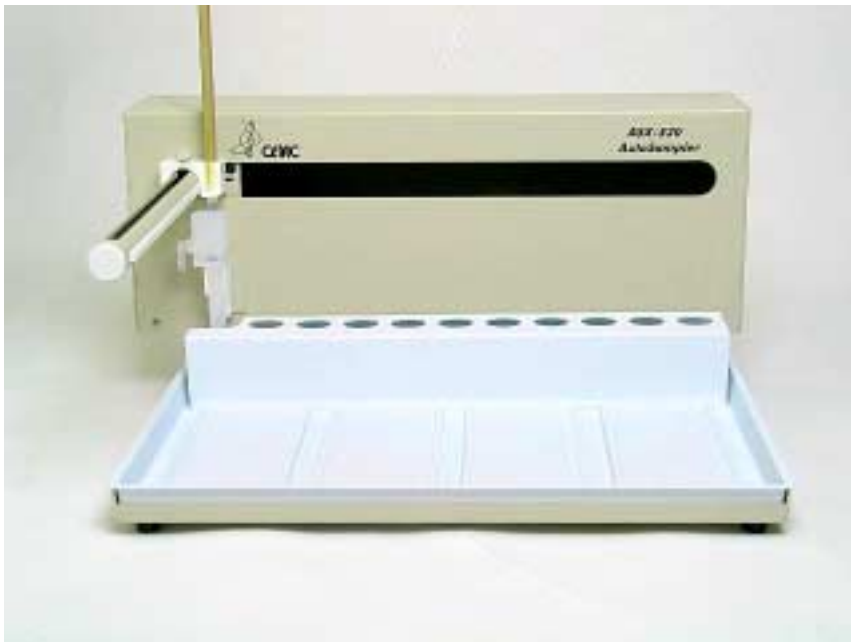
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**Guide to Replacing the Main  
Board on the ASX-520 and  
ASX-520HS Autosamplers**

This guide describes the necessary steps for replacing the main board on the ASX-520 and the ASX-520HS autosamplers.

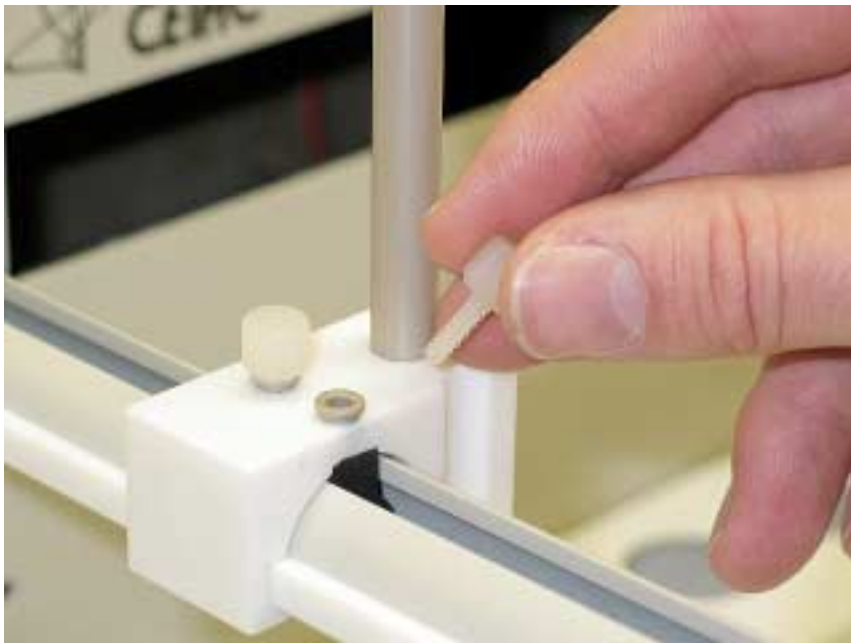
### Accessing the Board inside the Autosampler

1. Place the autosampler on a flat surface (Figure 1-1) and turn the unit off.



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

2. Remove the two Kynar thumbscrews from the Y-axis home block (Figure 1-2).



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



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

3. Remove the whole Z-drive assembly from the arm by pulling the whole Z-drive assembly forward and off the autosampler arm (Figure 1-3).



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

4. Once the Z-drive assembly is removed, remove the rinse station (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 (Figure 1-5).



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

5. The autosampler tray should then be removed. Lift up the tray and pull out (Figure 1-6).



**Figure 1-6.** Removing the tray.



**Figure 1-7.** Front view of ASX-520 Autosampler showing front cover screws.

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



**Figure 1-8.** View of ASX-520 Autosampler with the front cover being removed.

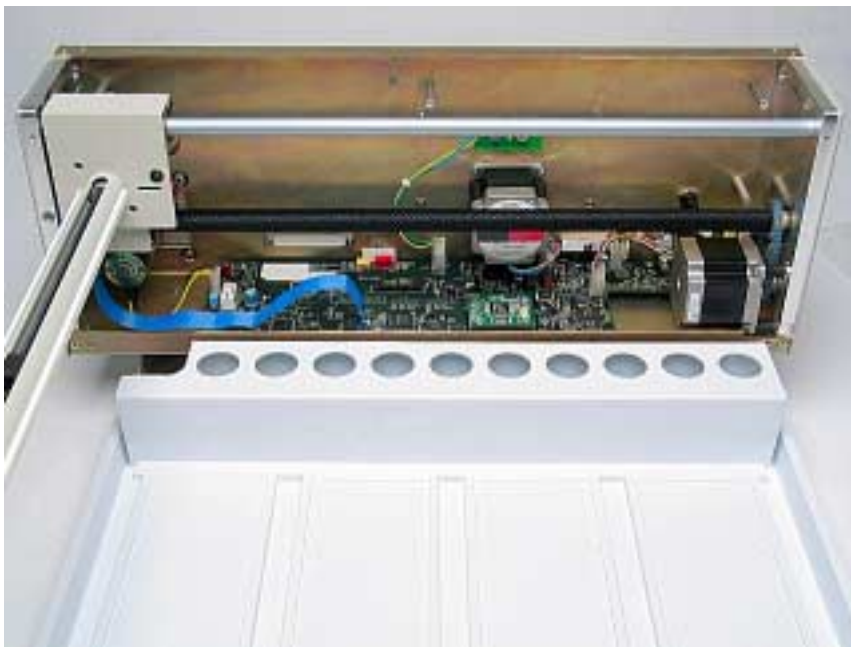


**Figure 1-9.** View of inner shield inside the ASX-520 Autosampler.

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 (Figure 1-9).
9. The inner shield can be removed by lifting it up while pulling forward (Figure 1-10).



**Figure 1-10.** Removal of inner shield.



**Figure 1-11.** View of ASX-520 with inner shield removed.

### **Removing the main board**

1. The autosampler (Figure 1-11) is now ready for the removal of the main board.
2. Pull out the ribbon cable from the main board to the carriage (Figure 1-12).



**Figure 1-12.** Main board with ribbon cable.

3. Remove the following five connectors: Pump connector, Z-sensor connector, Z-motor connector, X-motor connector, and main power connector (Figure 1-13).



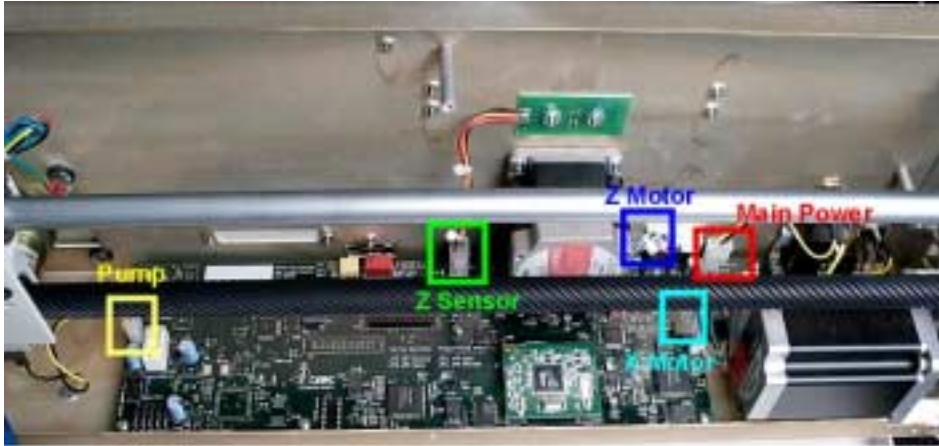


Figure 1-13. Main board with connector locations.

4. Remove the 6 screws holding the main board on the autosampler (Figure 1-14).



Figure 1-14. Main board with screw locations.

5. Remove the screw under the COM 2 port on the back of the autosampler (Figure 1-15). Note that the bracket on the inside (Figure 1-16) will come loose.



Figure 1-15. Screw below COM 2 port.



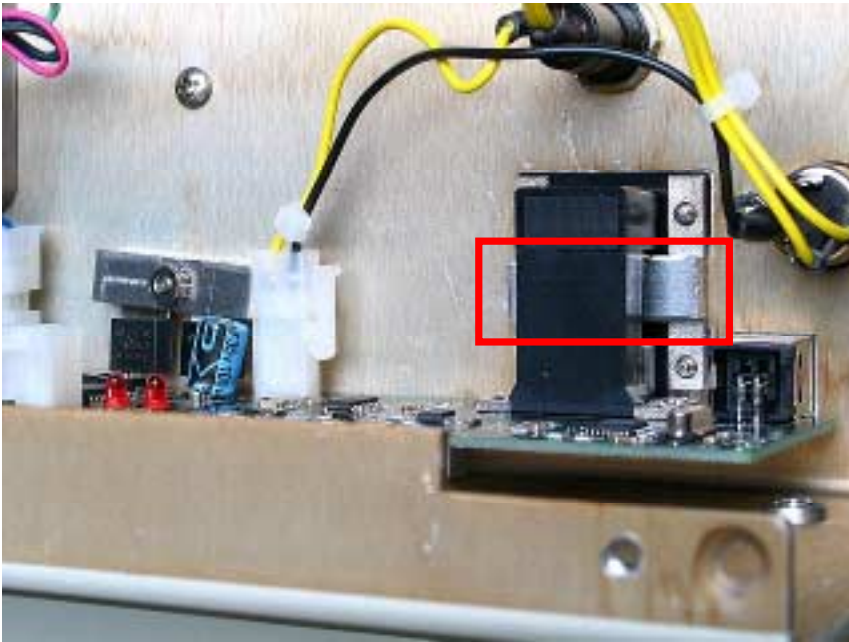


Figure 1-16. Bracket on the inside of the unit.

6. Remove the nut and heat sink bracket in the autosampler (Figure 1-17).



Figure 1-17. Heat sink bracket.

7. Remove the main board (Figure 1-18).



**Figure 1-18.** Removal of main board.

8. Put in the new board.
9. Replace the nut and heat sink bracket in the autosampler.
10. Put the screw under the COM 2 port on the back of the autosampler back in while holding the bracket on the inside.
11. Replace the 6 screws holding the main board on the autosampler.
12. Replace the following five connectors: Pump connector, Z-sensor connector, Z-motor connector, X-motor connector, and main power connector.

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WARNING

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**When replacing the five connectors (Figure 1-13), make certain that they are properly connected to the inputs on the board. Also when replacing the ribbon cable make sure that no pins are bent and all the pins are in the board connector. Improper connections could result in damage to the main board.**