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## Replacing the M7500 Hg Filters

Burnt Hg filters lower throughput and sensitivity. The filters(SP5954) cannot be cleaned they must be replaced.



Enlarged Example

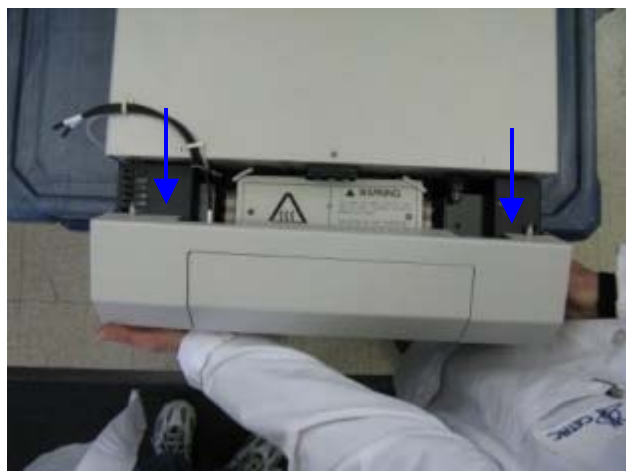


Tools needed for this procedure.

1. Shut down the software. Turn off instrument and remove power cable.



2. Open the front of the optical cover.



3. Loosen this thumbscrew.

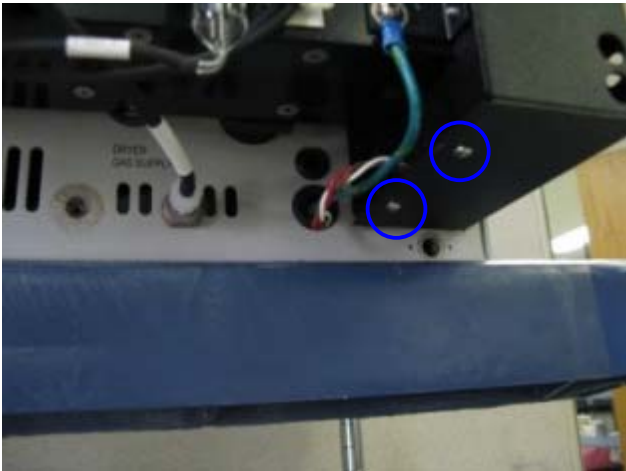


5. Locate the detector cover.

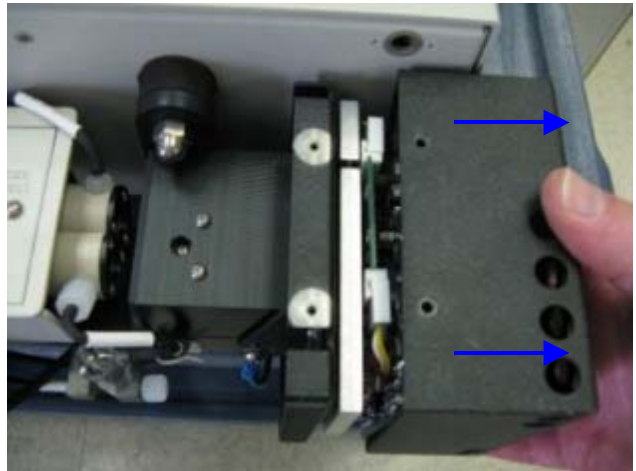
4. Pull the optical cover straight out.



6. Remove cover screws on top.



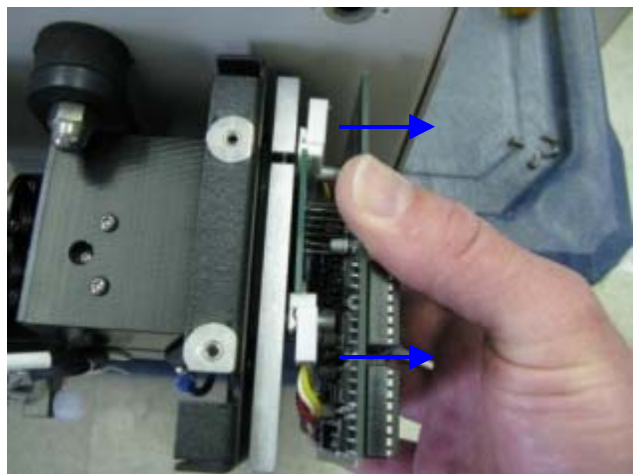
7. Remove cover screws on bottom.



8. Pull cover straight out to the right.



9. Remove board-mounting screws.

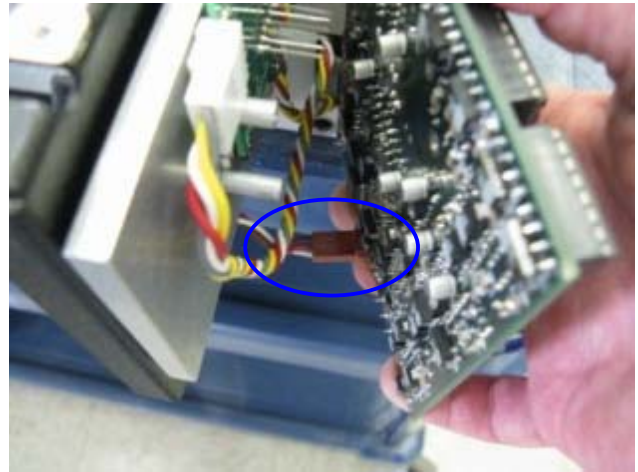


10. **Gently** rock as you pull the Acquisition Board to the right.





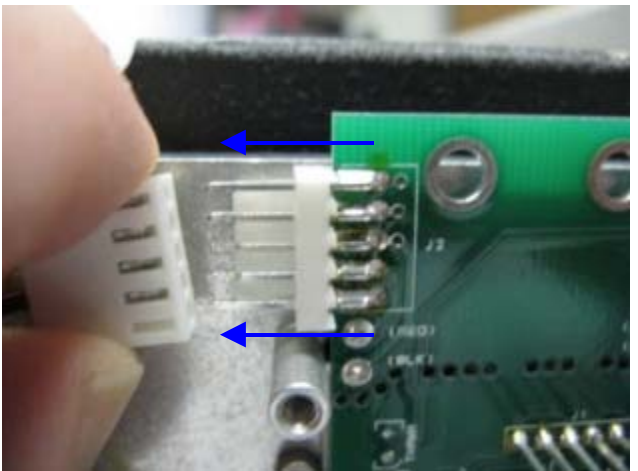
11. Acq. Board slides off the six connecting pins.



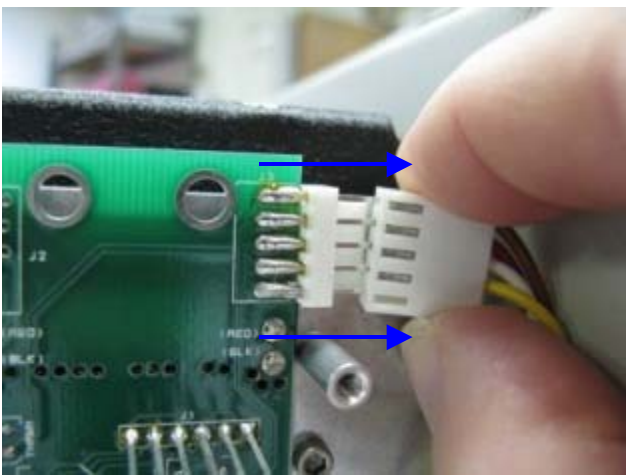
12. Disconnect the power connection.



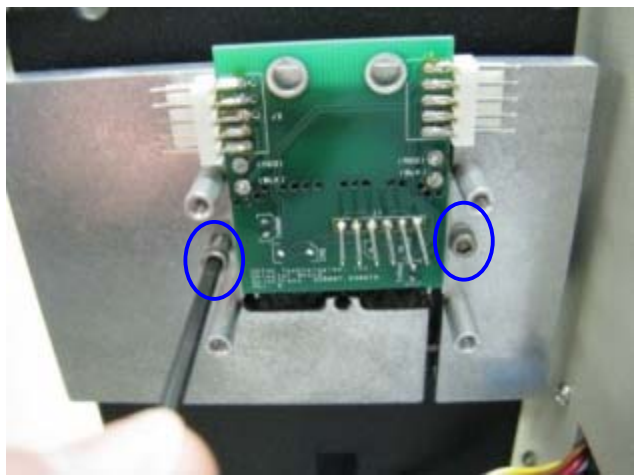
13. **Gently** rock and pull forward to remove from data connection.



14. Carefully remove left connection on Detector board.



15. Carefully remove right connection on Detector board.

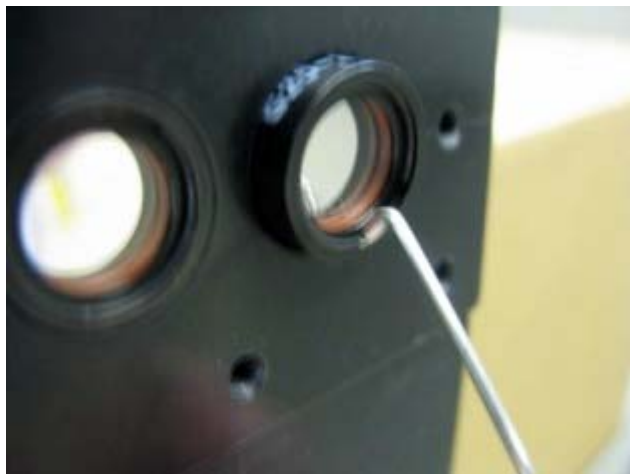


16. Remove mounting screws and set Detector aside.

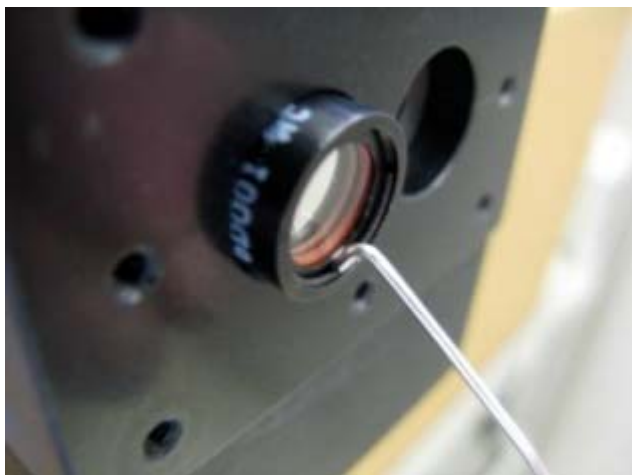
**Note: Set Detector board(flat side down) on kimwipes to protect the photodiodes from dust or scratching.**



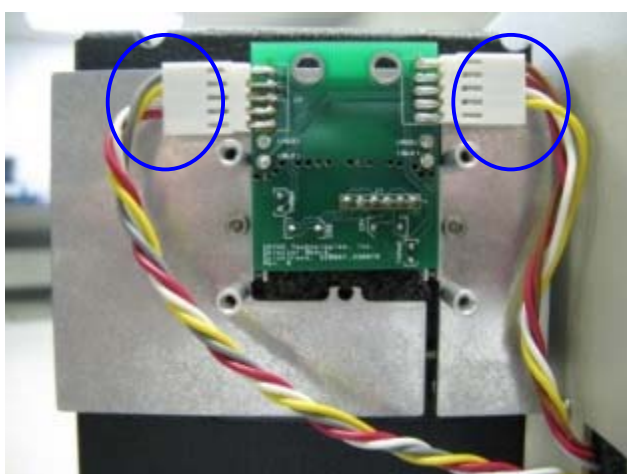
17. Make a hook on an end of the paperclip.



18. Remove the burnt filters from the camera block.



19. Ensure filters are clean(both sides), no particulate or fingerprints. Insert the new filters as shown.



20. Remount the Detector board and reattach connectors. (Grey wired connector on left)

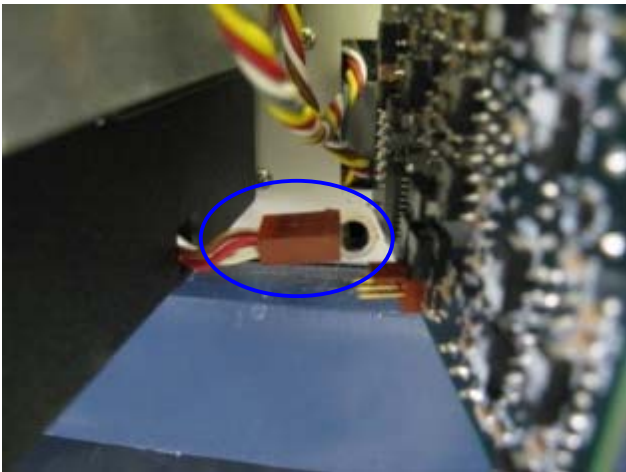




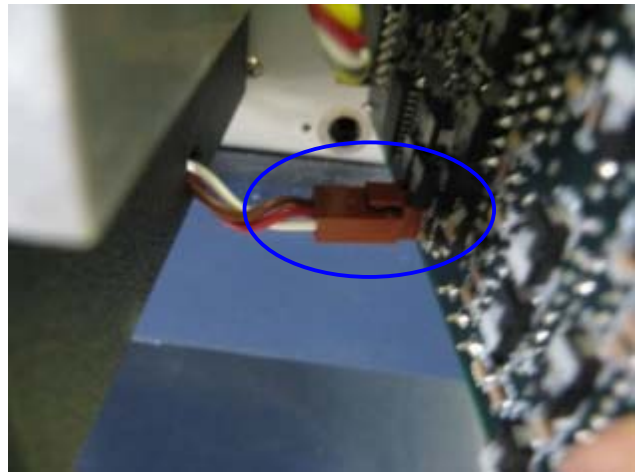
21. Line up Acq. board connector with cable connector.



22. Push gently with thumb to fully seat connection.  
(no space)



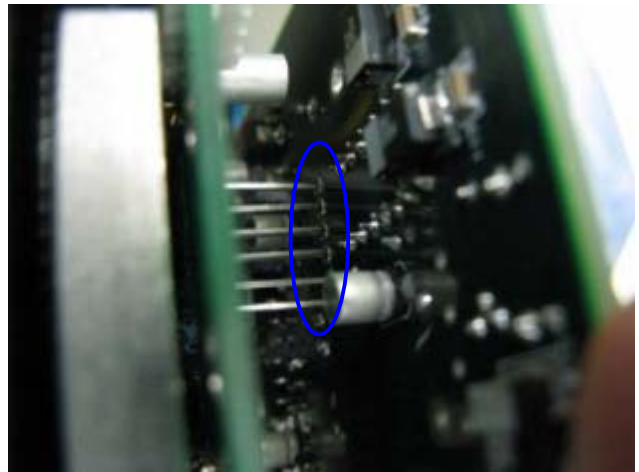
23. Reconnect power connector to board.



24. Connection "snaps" to hold connection tight.



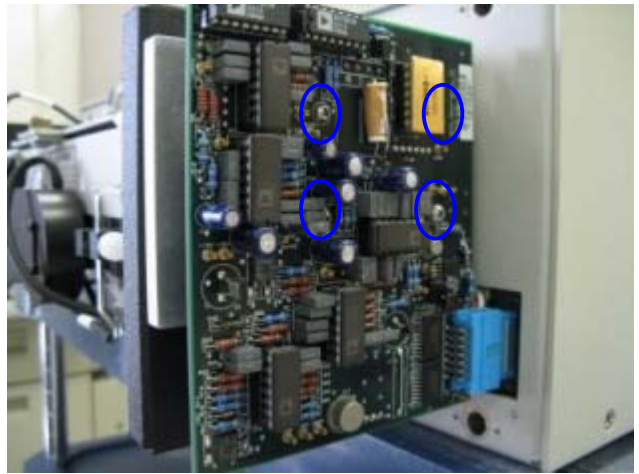
25. **Carefully** align the six pins and their contact points.



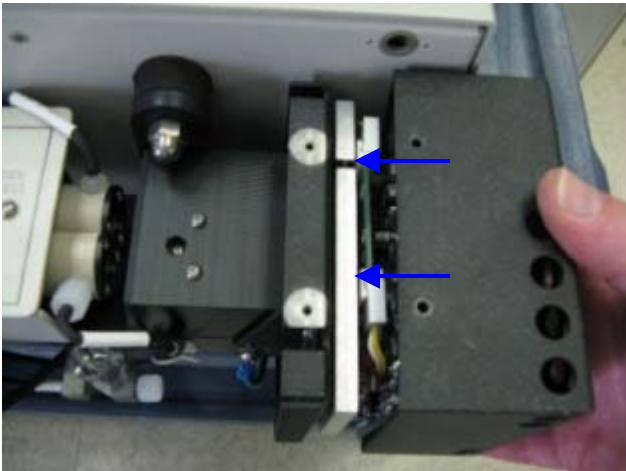
26. Once started, **gently** push board left till seated.



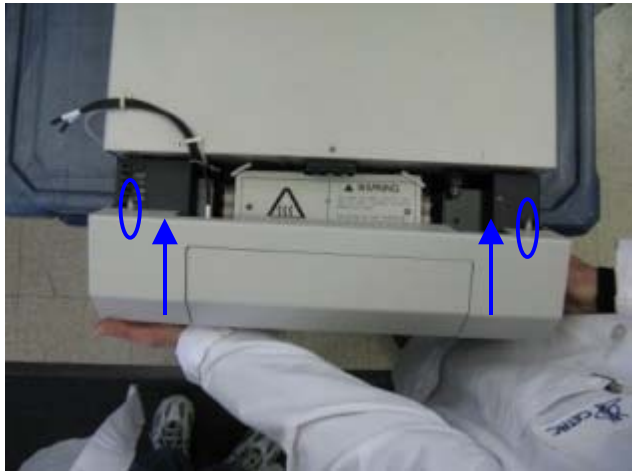
(Fully seated detector board)



27. Replace board-mounting screws.



28. Slide cover on from the right. Replace screws.



29. Replace optical cover by lining up pins and pushing till cover "snaps" on.



30. Tighten thumbscrew to secure cover.



31. Close access cover and operate normally.