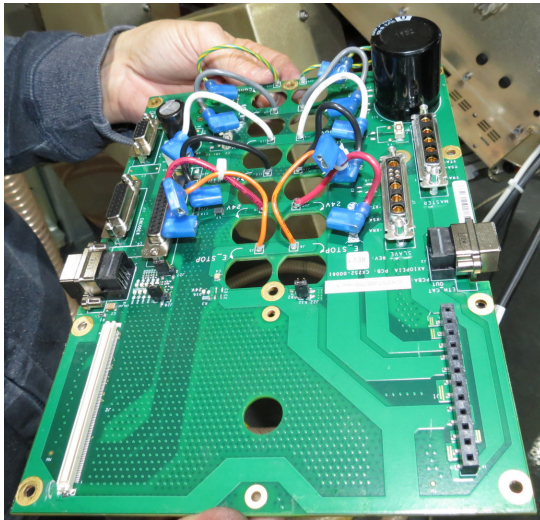




## Replacing a Master Axiopeia Board

CSR Level:	CSR B
Part Number:	CX257-00260
Part Name:	TSABAR AXIOPEIA MASTER TOP ASSEMBLY
Frequency:	as needed
Document ID:	c05942228
Revision:	Draft 1
Date:	30-April-2018



Required personnel:	1
Required time:	1 hour
Required tools:	Allen wrenches, flathead screwdriver, Phillips screwdriver, Loctite 242

**Caution:**

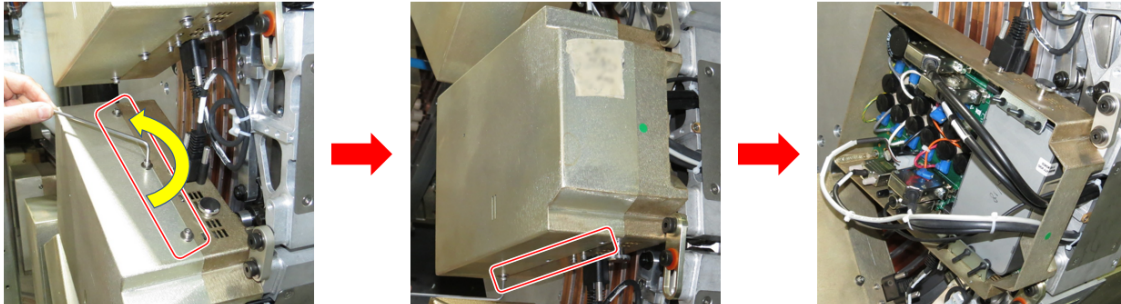
It is strongly recommended to wear an antistatic wrist strap to prevent electrostatic damage to sensitive electronic components.

**Important:**

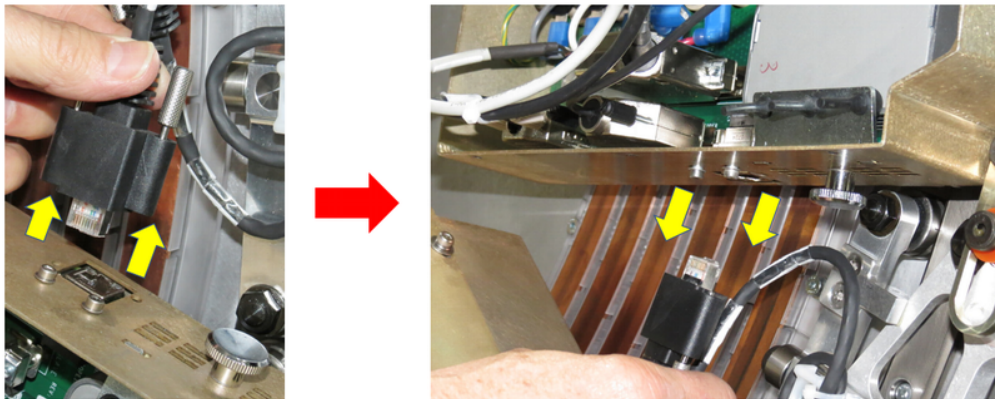
Make sure to comply with all relevant federal, state, and local regulations when disposing of replaced parts.

## Procedure

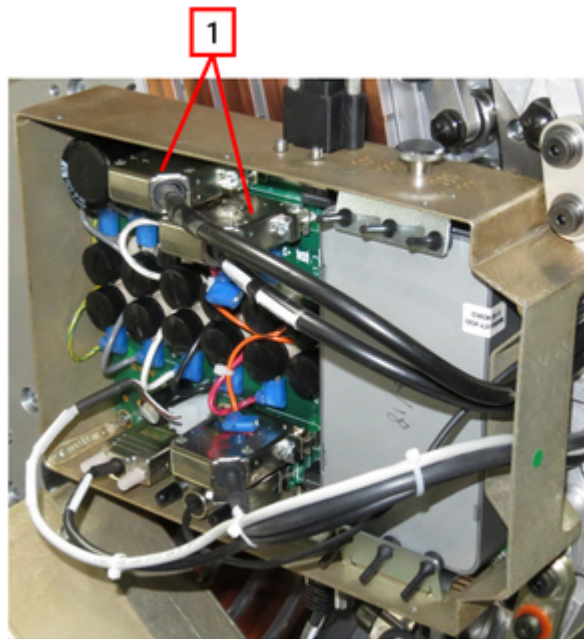
1. Using an Allen wrench, remove the Axiopeia cover (6 screws).



2. Disconnect the two EtherCAT cables from the Axiopeia board.

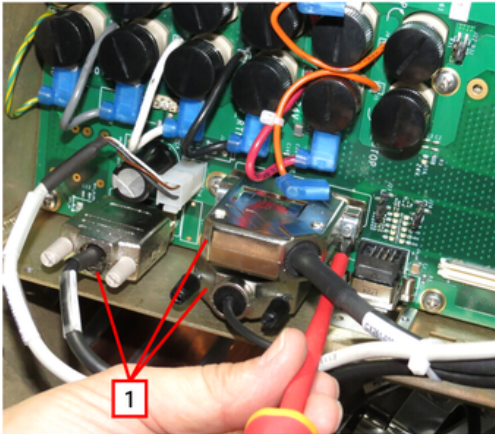


3. Using a flathead screwdriver, disconnect the master and slave motor cables from the Axiopeia board.



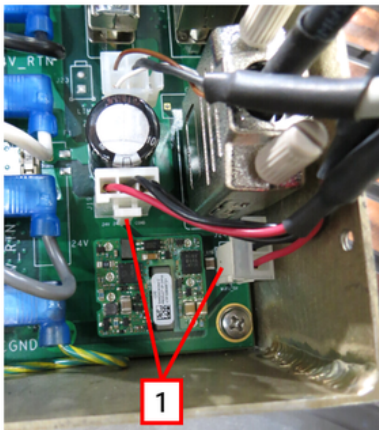
1	Encoder cables to disconnect
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4. Disconnect the two encoder cables and Hall effect cable from the Axiopeia board.

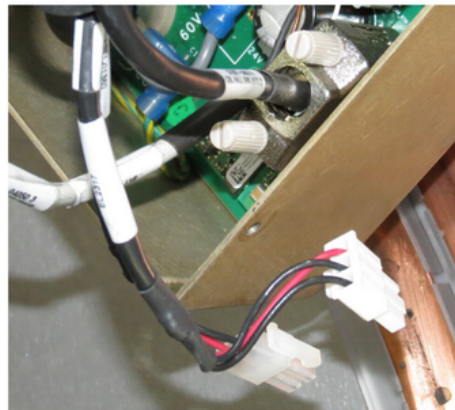


1	Cables to disconnect
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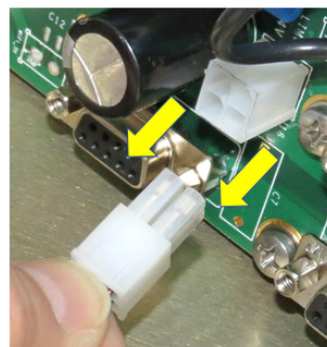
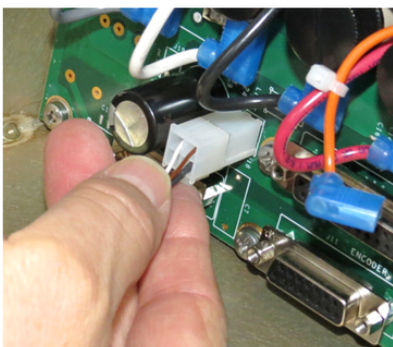
5. Disconnect the two Wifi cables in the corner of the board next to the small card.



1	Wifi cables to disconnect
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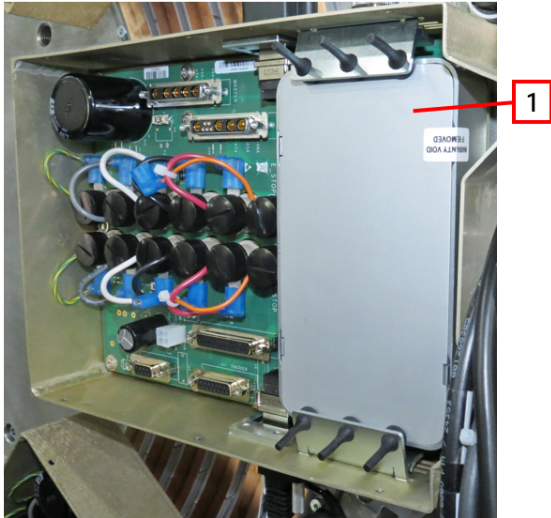


6. Disconnect the thermal monitoring plug from the Axiopeia board.



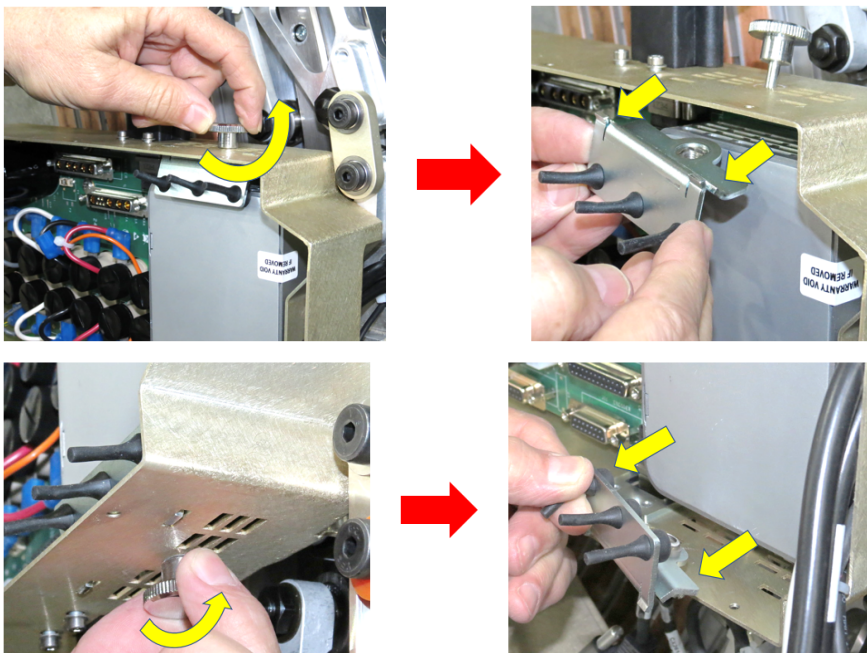


You are now ready to remove the driver from the board.



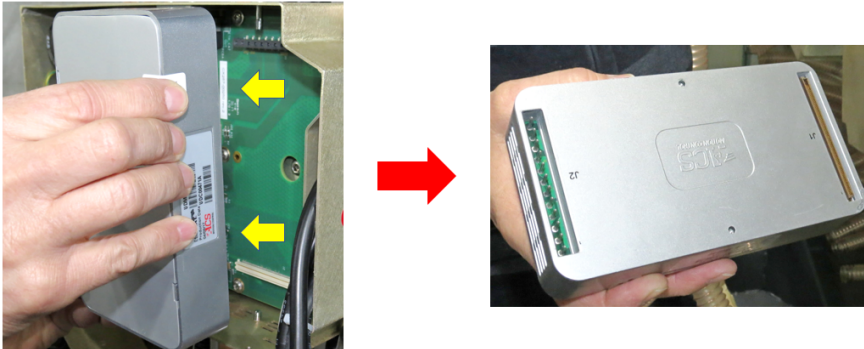
1	Driver
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7. Open the thumbscrews that secure the driver clamps, and then remove the clamps.





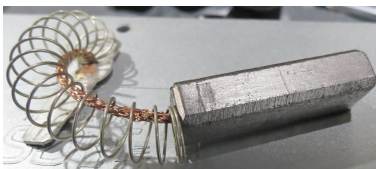
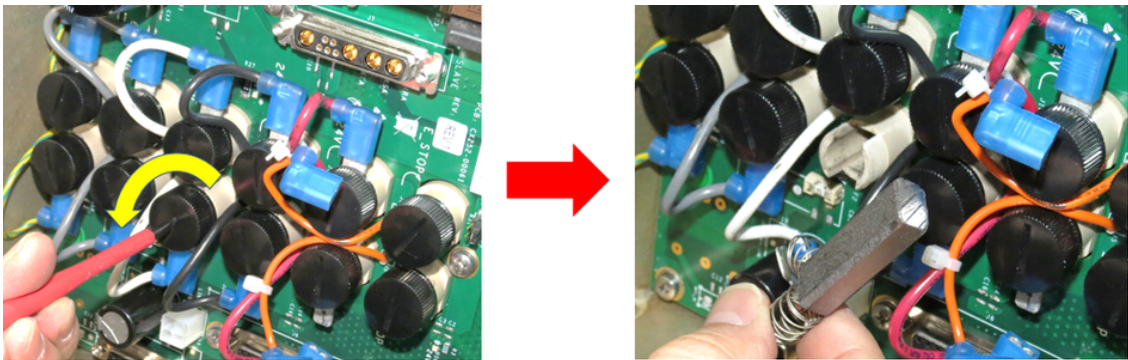
8. Carefully remove the driver and set it aside.



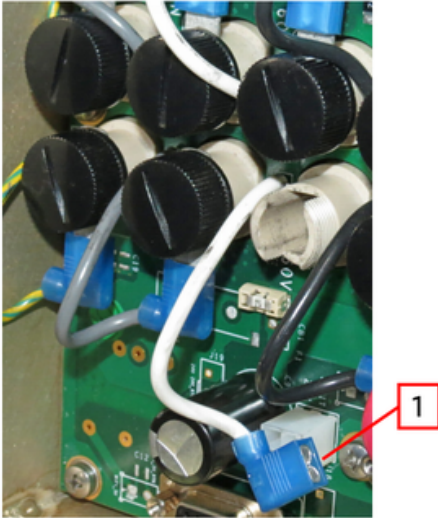
**Caution:**

Make sure to pull the driver straight out. Removing the driver at an angle can damage the connectors.

9. Using a flathead screwdriver, open each of the round caps and carefully remove the carbon brushes inside.

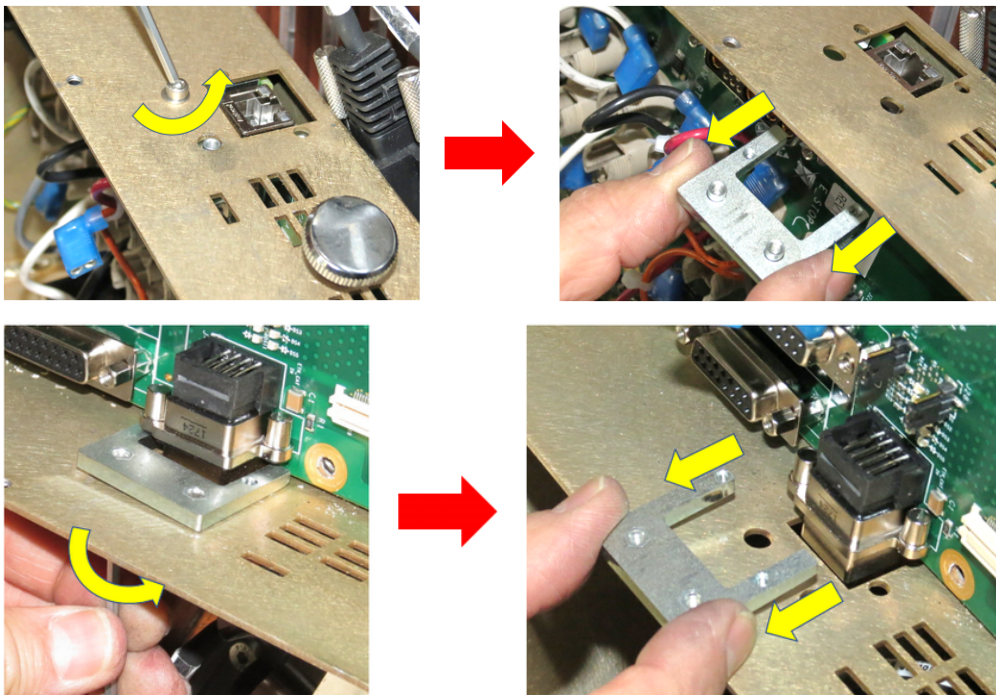


10. Disconnect the cable connected to each carbon brush.

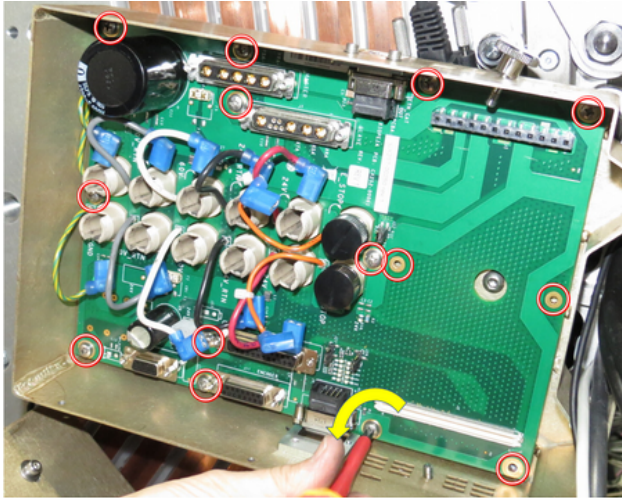


1	Disconnect brush cable
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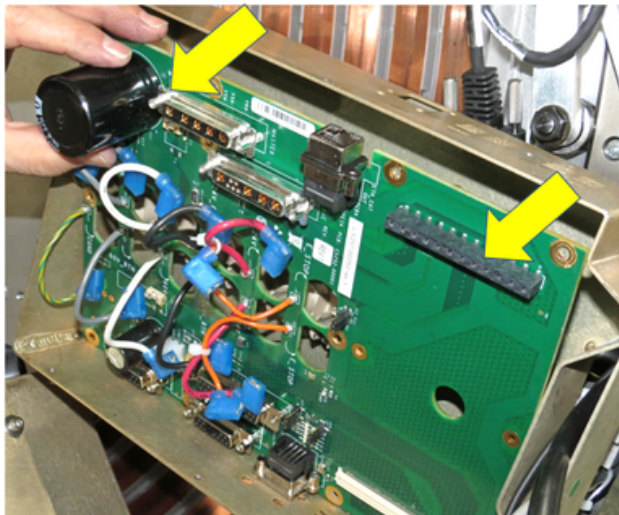
11. Using an Allen wrench, open the screws that secure the EtherCAT port brackets, and remove the brackets from the case.



12. Using a Phillips screwdriver, remove the screws that secure the Axiopeia board to the case.



13. Remove the Axiopeia board from its case.



14. Apply a small amount of Loctite 242 to the board screws.



15. Insert the new Axiopeia board in the case, and secure it in place with the screws.

16. Install the driver, as follows:

- a. Place the driver inside the case. Make sure to orient the driver correctly with the sockets on the board.
- b. Insert the clamps above and below the driver. Use the thumbscrews to secure the clamps in place.





17. Insert the EtherCAT port brackets, and secure each of the them with the two screws removed previously.
18. Carefully reinsert each carbon brush, and close the cap tightly.
19. Reconnect the carbon brush cables.
20. Reconnect the thermal monitoring plug.
21. Reconnect the Wifi cables.
22. Reconnect the encoder cables and Hall effect cable.
23. Reconnect the motor cables.
24. Reconnect the EtherCAT cables.
25. Reassemble the case. Do not overtighten the screws.