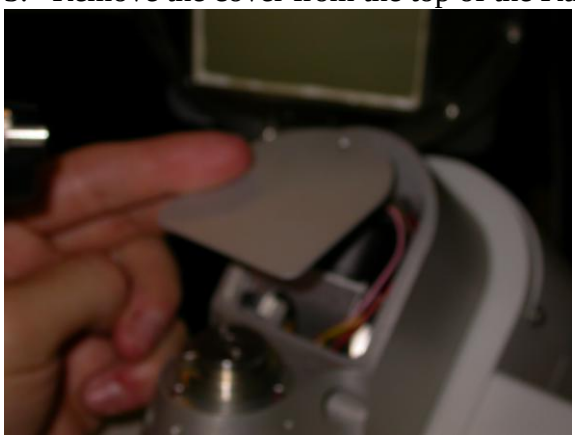
REFERENCE ONLY
Not approved technical documentation.

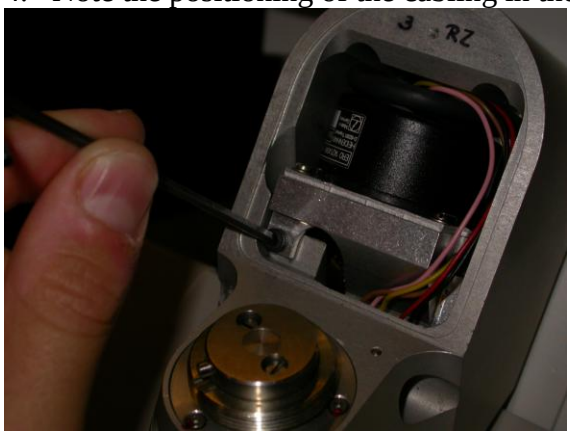
Replace Phi Motor /or gearing.

1. Move the goniometer to a position that is accessible to the front and sides of the Kappa drive.
2. Remove power from the instrument.
3. Remove the cover from the top of the Kappa axis to reveal the motor and encoder.

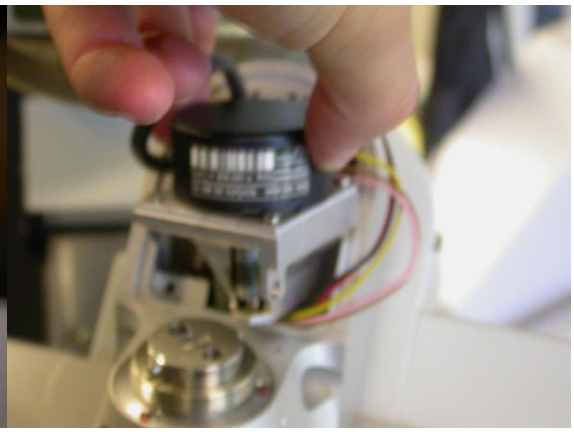


4. Unscrew the 2 bolts that hold the motor assembly in place.

4. Note the positioning of the cabling in the assembly as this will be crucial to re-assembling the motor.

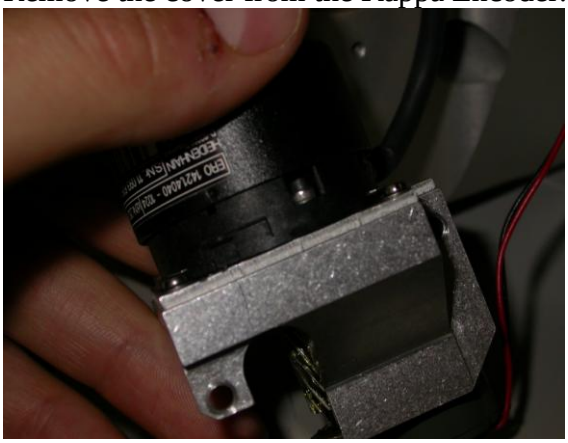


5. Grasp the assembly and “roll” it out of position taking care to watch the wires.

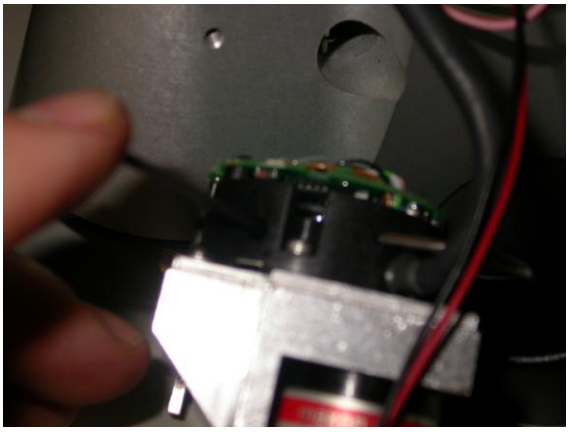



6. Gently place the motor/encoder to the side of the kappa axis. You can now spin the interlocking gear that the motor attaches to and verify that it moves freely and is in working condition.

7. Remove the cover from the Kappa Encoder.

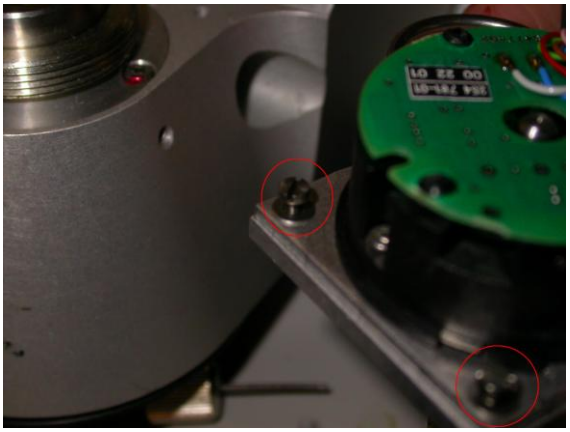


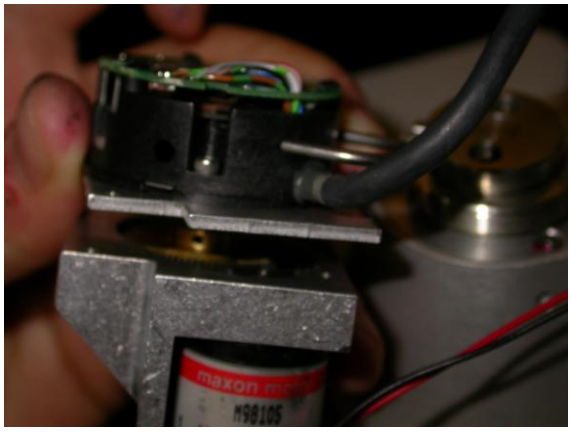
8. Loosen the first screw that holds the encoder wheel to the drive shaft.



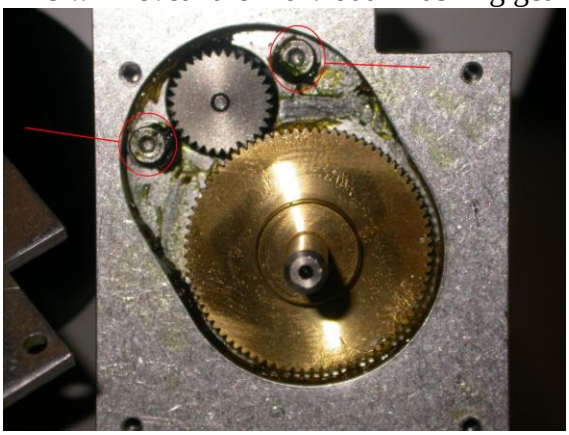
9. Insert the encoder brace to secure the encoder wheel before loosening the second screw.

10. Loosen the second screw that holds the encoder wheel the drive shaft.
11. Loosen and remove the 4 screws that hold the mounted encoder to the assembly.

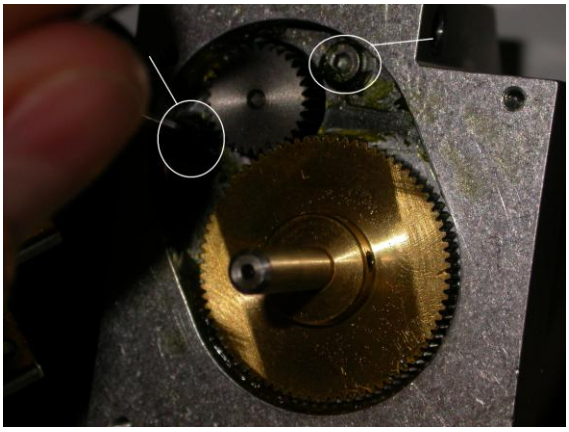




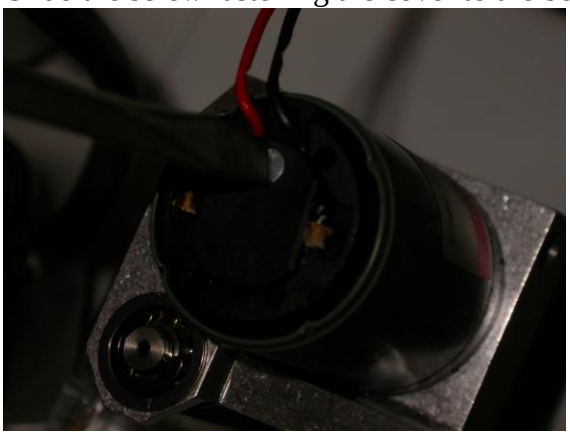
12. Pull the encoder assembly straight off the drive shaft.
13. This will reveal the individual mashing gears and the attaching hardware for the motor.



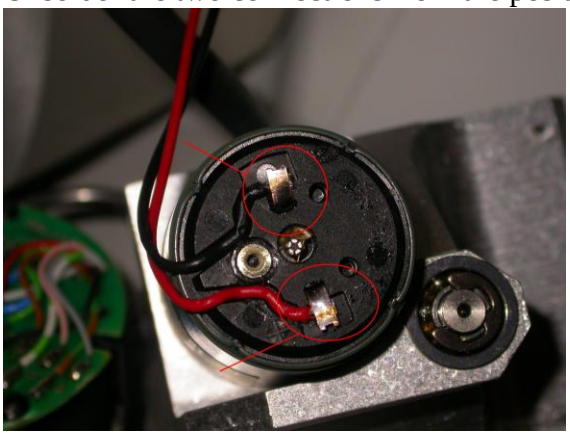
14. Remove the two allen-head screws that attach the motor to the encoder assembly.



15. Undo the screw fastening the cover to the bottom of the motor.



16. Unsolder the two connections from the positive and negative terminals.



17. Remove the motor assembly and re-attach the cover.

18. When reinstalling the new motor, follow this procedure in reverse order to the point of reinserting the motor/encoder assembly. Care must be taken to properly set the mesh between the gear of the encoder

and the worm gear.