

TB089 (Rev1) - Encoder Replacement

Overview

This document provides instructions on removing a Danaher M21 modular encoder and replacing it with a Sumtak encoder.

Removal of Danaher Encoder

1. Remove the end cap from the motor.
2. Unplug the encoder and motor power connectors.
3. Remove the MS connector. Note: The encoder set screw cannot be reached without going through the space that the MS connector occupies.
4. Remove the encoder plastic cover by firmly pressing on at least two of the three ribbed edges of the housing and pulling upwards. Lift the cover away from the encoder by feeding the encoder cable through the cover.
5. There is an alignment screw to the left of the encoder interface. Loosen the alignment screw one full turn. Turn the encoder until the 2 mounting screws are visible and then tighten the alignment screw.
6. Remove the two mounting screws being careful not to touch the encoder disk. Note: If the setscrew for the encoder's compression collar is on top of the encoder, steps 7 and 8 are not relevant. Actions of step nine refer to the setscrew, and should be modified appropriately.
7. To the right of the encoder interface, there is a hole in the encoder housing. Turn the encoder until this hole can be seen through the MS connector cavity.
8. Rotate the motor shaft, while keeping the encoder housing stationary, until the index marker on top of the encoder hub is aligned to the plastic post just to the left of the encoder interface.
9. Gently holding the encoder hub so that it will not move, insert a 5/64" Allen wrench through the small hole accessing it through the MS connector cavity. Use caution to not touch the glass disk of the encoder. The setscrew will not be lined up with the hole unless step 8 is performed properly. Do not force the Allen wrench as damage to the encoder may be incurred.
10. Loosen the setscrew with the Allen wrench and then remove the encoder by lifting the entire encoder while still pressing down on the hub.

Reseating Encoder

If the objective is to reseat the encoder already on the motor, the encoder does not have to be removed from the shaft in step 10 above. Once the setscrew has been loosened, apply pressure to the hub until it is almost flush with the end of the motor shaft. There should be a noticeable difference if the encoder was improperly seated before. The encoder may be re-installed by reversing the removal procedure.

Installing Sumtak Encoder

1. Place the encoder onto the shaft of the motor.
2. Using existing mounting screws, screw the encoder into place.
3. Tighten the screw for the compression ring with a 1.5 mm Allen wrench.
4. Install the MS connector.
5. Connect motor and encoder leads.

6. Replace the end cap on the motor.
7. Test the motor for proper operation.

Document History

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