

TB0406 Procedure to replace drive on TwinSAFE systems

Replacing a Beckhoff Ax5000 drive on 2016 onwards systems has complications due to the TwinSAFE system

Contents

Problem

Solution

Solution - Changing Safety Card

Comments

Problem

The Servo drive on a TwinSAFE system will have a Safety Card installed in a slot in the top. This card has a switch setting on it to identify itself to the Safety System, so it is imperative that the safety card moves with the drive location

Solution

1. Ensure the AX5805 TwinSAFE card is removed from the old drive and fitted to the new drive. The new drive will come with a TwinSAFE override card already fitted. It is important to keep the same TwinSAFE card during the switch over and not to replace it with a new one, as the TwinSAFE program is coded to the Axis <-> TwinSafe card combination. If the card is swapped, changes will be necessary to the Safety PLC program.
2. In System manager, scan for devices to ensure the system configuration is the same. If not this needs to be sorted out before you can continue.
3. In Drive Manager, check the drive has the correct motor fitted (this data, and all the rest should be downloaded to the drive on startup)
4. In setup mode, check the associated axis moves in the correct direction. Change motor direction in axes.mul if necessary (inform GG if this happens - it shouldn't!)
5. In setup mode check the datum direction (Ensure step 4 OK first!). Change datum direction in System Manager Axis->Enc->Parameter Tab. Homing Invert. (inform GG if this happens - it shouldn't!)
6. Initialise machine.

Solution - Changing Safety Card

If the Safety card is faulty and needs to be exchanged, the switch settings should be changed to match the replaced card

4.4.3.2 Setting the TwinSAFE address of the AX5805/AX5806

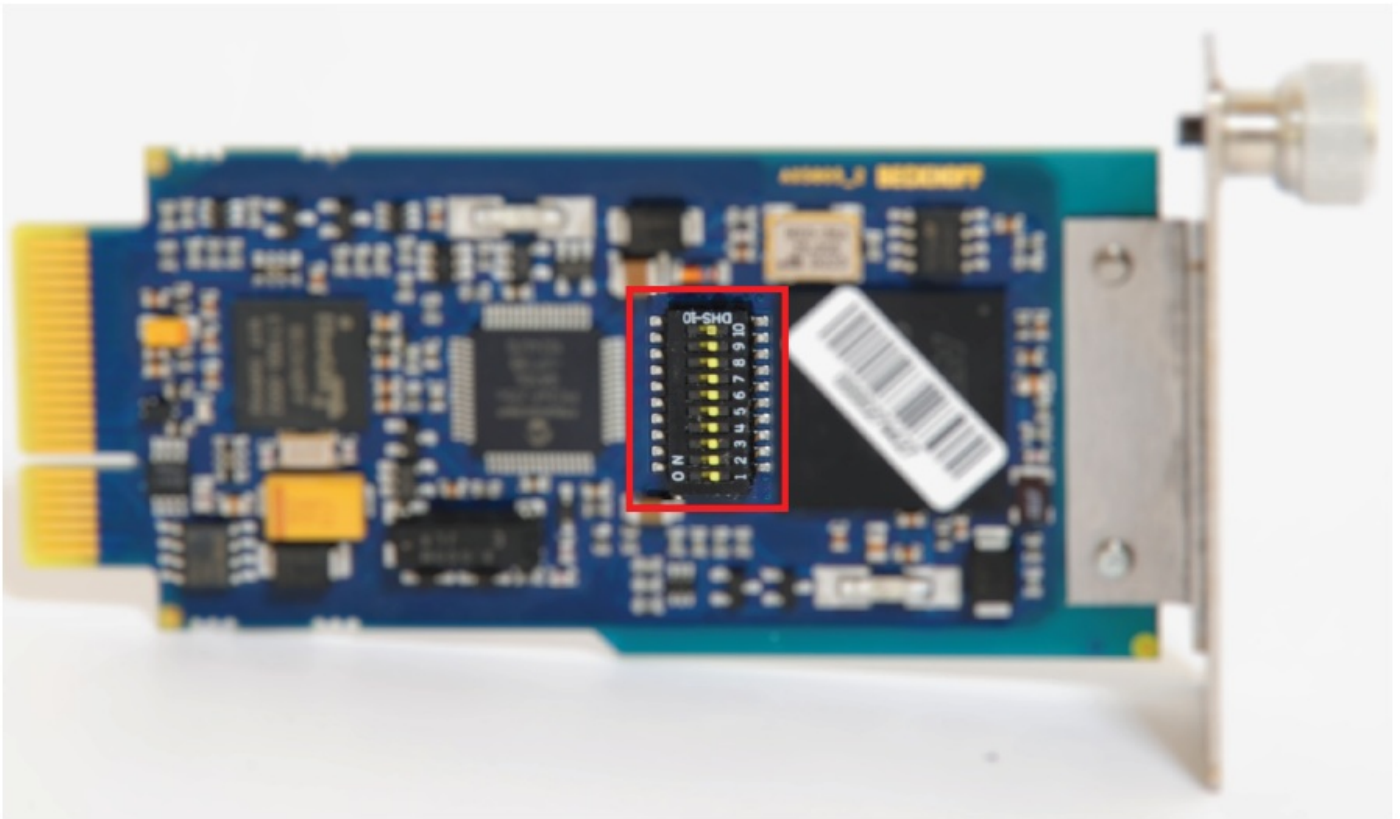


Fig. 2: DIP switch for setting the TwinSAFE address

You must set a unique TwinSAFE address using the 10-way DIP switch on the AX5805/AX5806 TwinSAFE drive option card. TwinSAFE addresses between 1 and 1023 are available. Address 0 is not permitted.