Technical Bulletin 506
260 Mounting Instructions

BRITISH ENCODER PRODUCTS COMPANY

After carefully unpacking the unit, inspect and ensure that the motor shaft is the correct size and free of all burrs and aberrations.

The maximum recommended motor axial endplay is ±0.76mm. Maximum motor TIR is 0.17mm.

STEP 1

Slide the Model 260 encoder over the motor shaft.

DO NOT USE UNDUE FORCE

The encoder should be positioned so that the flex mount arms just touch the mounting surface. Install two 4-40 screws through the holes in the flex mount and tighten onto the motor to a torque of 0.812 N-m to 1.129 N-m. For additional security a drop of Loctite 242 can be added to the threads of the screws.

STEP 2

Tighten the socket head screw in the clamping collar to a torque of 0.812 N-m to 1.129 N-m. Be careful not to move the encoder while the clamping collar is being tightened.

Alignment note: When turning the motor shaft by hand, the rocking movement of the encoder should be minimal. If it isn't, loosen the clamping collar screw and reposition the encoder until this movement is minimal.

IN CASE OF DIFFICULTY

Note 1: Make sure the socket head screw in the front of the encoder locking collar is loose and the collar is not cocked or jammed. Clean the shaft of any burrs using fine crocus cloth.
Note 2: When tightening the screw in the locking collar, avoid holding the motor shaft with anything that may scar or burr the shaft.

REMOVAL

1. Loosen (do not remove) socket head screw in the clamping collar. Then remove the flex mount screws and slide the encoder off.

COMMUTATION ALIGNMENT

Note: This procedure is the most standard. However, different procedures may be specified by the motor manufacturer. For details, please consult the motor manufacturer.

STEP 1

Complete step 1 as shown in the standard mounting instructions above.

STEP 2

Lock the motor rotor to hold the motor shaft in a fixed position for alignment to the commutation channels. Apply a current limited DC power source to the #2 terminal of the motor, and the DC return to the #1 terminal to hold the rotor at the positive transition of V12.

STEP 3

While viewing encoder U channel on an oscilloscope, rotate the encoder shaft to a positive going transition of the U channel. Tighten the encoder clamping collar.

STEP 4

The alignment can then be checked by turning the motor shaft and comparing the V12 and U channel transition points (see Fig.1). To fine-tune the alignment, loosen the two flex mount screws and rotate the encoder housing slightly to align the channels. The same procedure can be performed using the V channel and the V23 winding, or the W channel and the V31 winding.

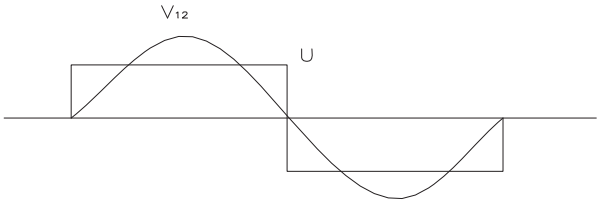

Fig. 1

If you have questions regarding this Technical Bulletin, please call Technical Support at +44(0)1978 262100 or email steve.dixon@encoder.co.uk