## ► Trio Motion Technology ◀

## Technical Bulletin

Trio Motion Technology Ltd. Shannon Way,

Tewkesbury

Glos. GL20 8ND U.K.

Tel: 01684 292333 Fax: 01684 297929 Email: apps@triomotion.com Web: www.triomotion.com

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Subject: Single Ended Encoder connection

The Trio range of Motion Coordinators all use differential input RS422 level signals for connecting incremental encoders as feedback devices and as line speed/position inputs.

If it is necessary to connect a single ended encoder, the "inverse" input for each channel must be biased at half supply voltage. The simplest bias network is a potential divider between 5V and ground with resistor values arranged to give 2.5V at the centre tap. Figure 1 shows a suitable circuit for the P200 Series of daughter boards and the Euro205.

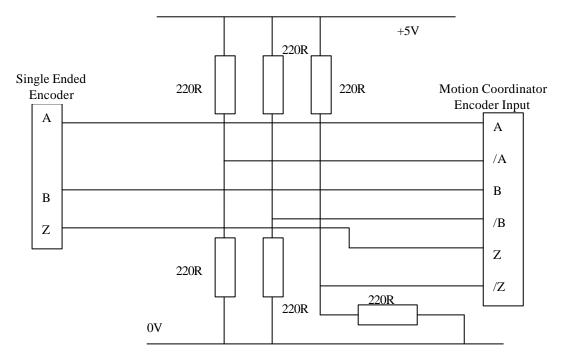


Figure 1: Bias Network for P200 Daughter Board / Euro 205

Each input requires a separate bias network because of the internal termination resistor between sig and /sig on each channel. The MC202 does not have termination resistors so for this controller ONLY, one pair of 2k7 resistors can be used to generate the common 2.5V bias for /A, /B and /Z.