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Subject: MC302X Connections (Temporary user's guide)

Technical Note

1. Background:

The MC302X is the latest ARM based 1½ axis standalone *Motion Coordinator* from Trio Motion Technology. This Technote details the electrical connections of the MC302X.

2. Details:

The 2x 9 way 'd' connectors on the front of the unit are the same as the pin out for the MC206 which is;

Pin	Servo Axis	Stepper Axis
1	Enc. A	Step +
2	Enc. /A	Step -
3	Enc. B	Direction +
4	Enc. /B	Direction -
5	GND	GND
6	Enc. Z	Boost +
7	Enc. /Z	Boost -
8	5V	5V
9	Not Connected	Not Connected
shell	Screen	Screen

There are 2x 8 pin mini din connectors for RS232 and RS485 communications. The 'A' connector which is the one nearest to the CAN connector is RS232 for programming and has the following pin-out.

Pin1	Do Not Connect	Pin5	RS232 Receive Serial Port 0
Pin2	Do Not Connect	Pin6	Do Not Connect
Pin3	RS232 Transmit Serial Port 0	Pin7	Do Not Connect
Pin4	RS232 Ground	Pin8	Do Not Connect

The second 8 pin mini-din comms connector has pins for both RS232 and RS485 but BOTH transceiver circuits are connected to serial port 1 so you can have RS232 or RS485 but not both. The pin out is;

Pin1	RS485 Data In A - Serial Port 1	Pin5	RS232 Receive Serial Port 1
Pin2	RS485 Data In B - Serial Port 1	Pin6	Do Not Connect
Pin3	RS232 Transmit Serial Port 1	Pin7	RS485 Data Out Z - Serial Port 1
Pin4	RS232 Ground	Pin8	RS485 Data Out Y - Serial Port 1

Lastly the MC302 has 2 phoenix style connectors with identical pin out to the MC202 so working from left to right the pin out is;

5 Way (CAN) Connector

Pin 1	V+
Pin2	CAN_H
Pin3	Shield
Pin4	CAN_L
Pin5	V-

14 way Connector

Pin1	Vout+
Pin2	Vout-
Pin3	Amplifier Enable A
Pin4	Amplifier Enable B
Pin5	I/O 0 Volts
Pin6	I/O 24 Volts
Pin7	Input 0 / Registration Axis 0
Pin8	Input 1 / Registration Axis 1
Pin9	Input 2
Pin10	Input 3
Pin11	I/O Channel 8
Pin12	I/O Channel 9
Pin13	I/O Channel 10
Pin14	I/O Channel 11

For more information about using the MC302X, please visit www.triomotion.com and select Support -> Technical Notes. Download the Technical Note TN30-22 MC302X Comparison and Connection, which is a guide to help all users of the MC302X including those converting from the MC202.