

# MDX

## MDX-K Integrated Servo Motor Quick Setup Guide



### Requirements

- A 24-60 VDC power supply.
- A PC running Microsoft Windows XP, or Windows 7/8/10.
- A small flat blade screwdriver for tightening the connectors (included)
- Software: *MDX Servo Suite*.
- A I/O cable 3004-318 (sold separately)
- For RS-485 and CANopen models, you may need to use the Applied Motion 8500-003 USB-serial adapter with screw terminal connectors for communication and configuration.



### Step 1

- Visit [www.applied-motion.com/products/software](http://www.applied-motion.com/products/software) to download the *MDX Servo Suite* software.
- Install the *MDX Servo Suite* software on your PC.
- Connect the drive to the PC using the appropriate programming cable.
- For CANopen models with RS-232 a programming cable is provided with each unit. Connect the larger connector (DB9) of the cable to the PC serial communication port, and the smaller side to the MDX motor (white 5 pin connector).
- For RS485 models a RS-485 a programming cable is provided with each unit.
- Please refer to "Communication Wiring" on back page for more details.

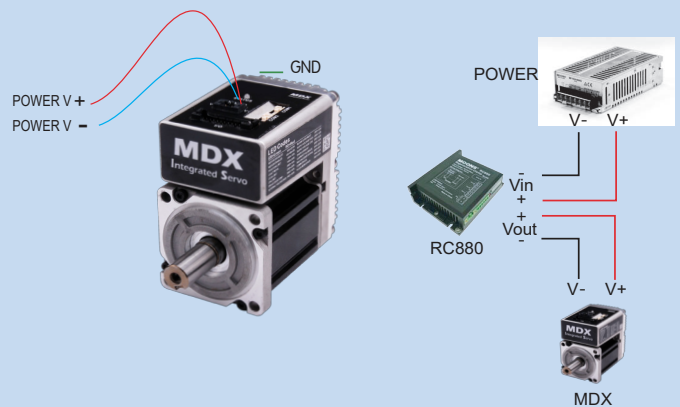
### Step 2

#### Connect the Power Supply

- Use power supply mating cable. (AWG 20 recommended)
- Connect main power supply "+" to power supply terminal's "+" wire, connect power supply "-" to power supply terminal's "-" wire.
- If a regulated power supply is being used, there may be a problem with regeneration that can be solved with the use of an Applied Motion RC880 Regeneration Clamp. See the Applied Motion website or the MDX Hardware Manual for more information.

[www.applied-motion.com/products/accessories/rc880](http://www.applied-motion.com/products/accessories/rc880)

**Be careful not to reverse the "+" and "-" wires. Reversing the connection may blow the internal fuse and void the warranty.**

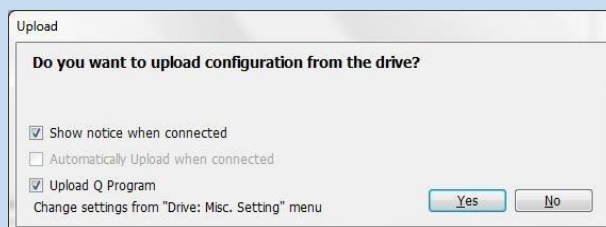


## Step3

### Configure the MDX Servo Suite software.

- Open the MDX Servo Suite software on your PC.
- Select communication port for the motor.
- Apply power to the MDX servo motor.
- Connect to the motor

The software should automatically identify the motor model number upon power up and display the 'Upload' panel:  
Click "yes" to upload the drive configuration



- Begin configuring the motor according to your application requirements.
- When ready to test your configuration, click Download All to Drive.

### Communication Wiring:

Two standard 5-pin crimp style connectors are used for the communications interface.

#### CANopen and RS-232 Communication

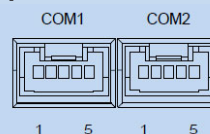
Only COM1 can be used for both drive configuration with RS-232 serial communication and CANopen daisy chain network. COM2 is for CANopen daisy chain network only.

#### RS-485 Communication

Part no. 8500-003 is a recommended USB to RS-422/485 converter. It supports either the half-duplex (2-wire) RS-485 network, or the full-duplex (4-wire) RS-422 network.

For more details please refer to drives hardware manual.

### CANopen Communication



PIN	COM1 Signal	COM2 Signal	Cable Color
1	RS-232 TX	N/C	Black
2	RS-232 RX	N/C	Brown
3	CAN H	CAN H	Red
4	CAN L	CAN L	Orange
5	GND	GND	Yellow

### USB to RS-422/485 Converter

2-Wire Connection:

4-Wire Connection:

DB9 Male (PIN)	Converter Output	Drive	DB9 Male (PIN)	Converter Output	Drive
1	T/R+	RX+	1	TX+	RX+
2	T/R-	RX-	2	TX-	RX-
1	T/R+	TX+	3	RX+	TX+
2	T/R-	TX-	4	RX-	TX-
5	GND	GND	5	GND	GND

If you have any questions or comments, please call Applied Motion Products Customer Support: (800) 525-1609, or visit us online at [www.applied-motion.com](http://www.applied-motion.com).



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