

# MDX

## MDX-L IP65 Integrated Servo Motor

### Quick Setup Guide

#### Requirements



- A 24-60VDC power supply.
- A PC running Microsoft Windows XP, or Windows 7/8/10.
- Software: *MDX Servo Suite*.
- A 3004-331-XX (right angle), 3004-332-XX (straight) power cable,
- A 3004-333-XX (right angle), 3004-334-XX (straight) I/O cable if needed
- For RS-485 and CANopen models: 3004-288-xx programming cable. You may need an Applied Motion 8500-003 USB-serial adapter with screw terminal connector in order to connect your MDX to your PC for configuration, tuning and programming.
- For daisy-chain connections of two or more motors, the 3004-384-XX (straight) or 3004-385-XX (right angle) cables are recommended.
- Termination resistor is recommended for all CANopen networks and large RS-485 networks (15 axes or more). p/n. 3004-382, 3004-383.



## Step 1

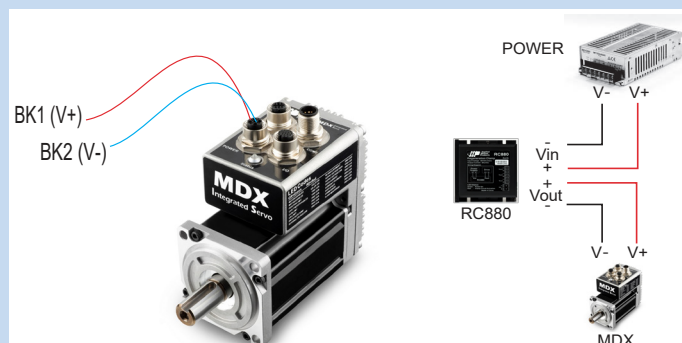
- Visit [www.applied-motion.com/products/software](http://www.applied-motion.com/products/software) to download the *MDX Servo Suite* software.
- Install the *MDX Servo Suite* software on your PC.
- Connect the drive to the PC using the appropriate programming cable.

**Please refer to “Communication Wiring” on the back page for more details.**

## Step 2

### Connect the Power Supply

- Use one of the power supply mating cables listed above.
- Connect main power supply “+” to power cable’s “BK1” wire, connect power supply “-” to power cable’s “BK2” wire.
- **Be careful not to reverse the “+” and “-” wires. Reversing the connection may blow the internal fuse and void the warranty.**
- 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)



## 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:

**Note:** Cables are not included and must be purchased separately.

#### CANopen & RS-232 Communication

For RS-232 models please use 3004-278-5M RS-232 programming cable.

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

For RS-485 and CANopen models use 3004-288-XX programming cable.

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.

#### CANopen Communication

PIN	COM1 Signals	COM2 Signals	Color
1	RS-232 TX	N/C	Brown
2	RS-232 RX	N/C	White
3	CAN H	CAN H	Blue
4	CAN L	CAN L	Black
5	GND	GND	Gray

#### USB to RS-422/485 Converter

##### 2-Wire Connection

##### 4-Wire Connection

DB9 Male (PIN)	Converter Output	Drive	DB9 Male (PIN)	Converter Output	Drive	Color
1	T/R+	RX+	1	TX+	RX+	Brown
2	T/R-	RX-	2	TX-	RX-	White
1	T/R+	TX+	3	RX+	TX+	Blue
2	T/R-	TX-	4	RX-	TX-	Black
5	GND	GND	5	GND	GND	Gray

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

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