

MDX

MDXL 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.
- For Ethernet Drive: 3004-280-5M Ethernet programming cable, and M12 Ethernet cable 3004-335(straight) or 3004-345(right angle) for daisy chain network.



Step 1

- Visit 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



Step 3

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

For Ethernet models, click PING and ensure that a response is received before clicking Connect

NOTE: If your Ethernet motor does not communicate, you might need to reset the IP address to the default of 10.10.10.10.

You can do this by powering down the motor, then powering it up with the Ethernet cable UNPLUGGED. Plug in the cable 5 seconds after power up and click Connect.

For serial communication models, the software should automatically identify the motor model number upon power up and display the 'Upload' panel:

- 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

Please use 3004-288-5M 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

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.

Ethernet Communication

For Ethernet models: 3004-280-XX Ethernet programming and communication cable, and M12 Ethernet cable to daisy chain to another motor.

CANopen Communication

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

USB to RS-422/485 Converter

2-Wire Connection

4-Wire Connection

Cable PIN	Converter Output	Drive	Cable 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 www.applied-motion.com.



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