# AI-485 Adapter Installation Sheet (Standard and 24 V)

## 1 Installing the Adapter

The AI-485 Adapters are pluggable options installed to the top of a drive as shown in **Figure 1-1**. They are intended for use with Commander C200, C300, C300 PM and Unidrive M400.

**Figure 1-1 Mounting the AI-485 Adapters to the drive (size 2 shown).**

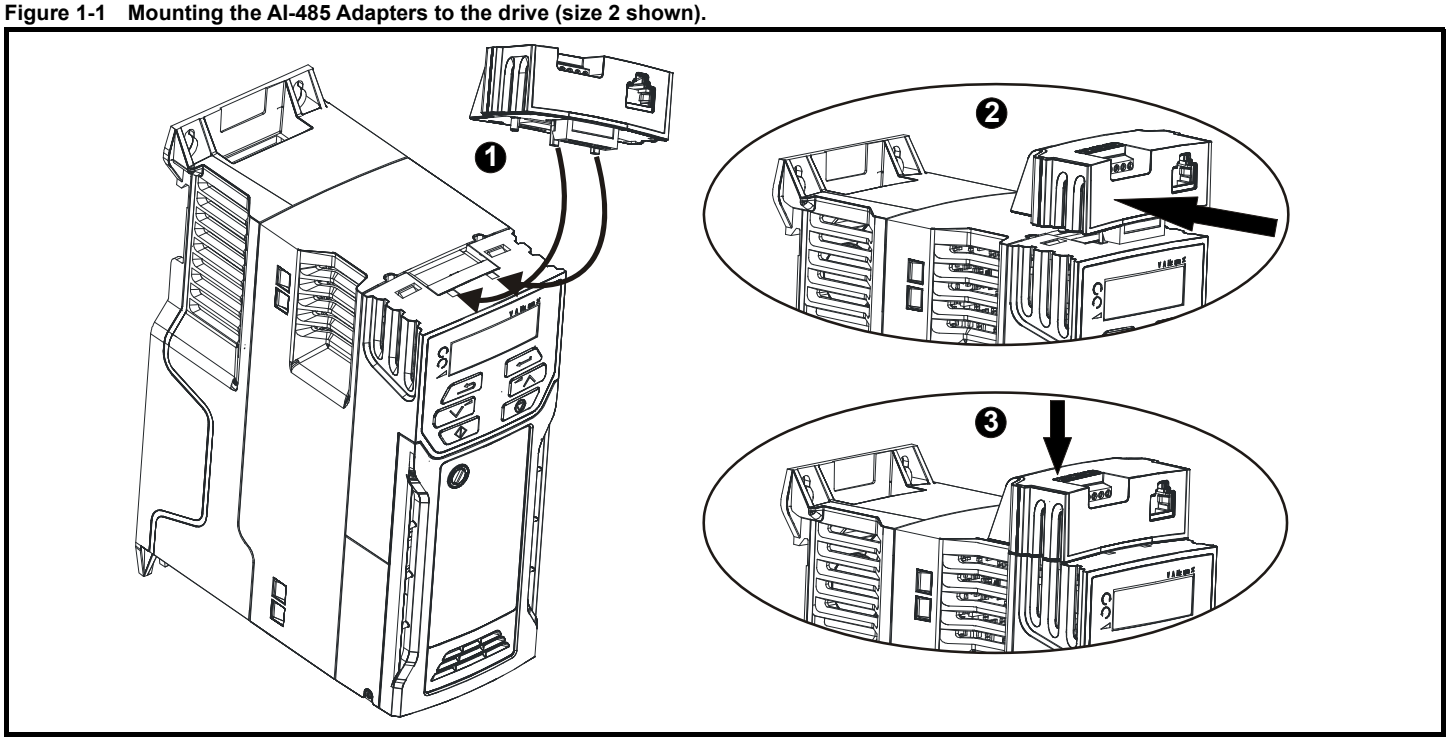
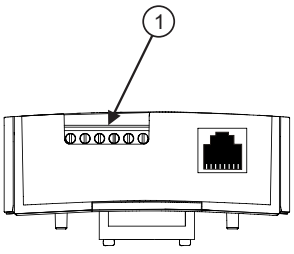
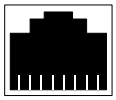



**Table 1-1 AI-485 Standard Module and Terminal Information table**

| Module | Terminal Information |
|---|---|
|  AI-485 Adapter |  1 2 3 4 5 6  8 1 |

| Terminal | Function |
|---|---|
| 1 | 0 V |
| 2 | RX\ TX\ |
| 3 | RX TX |
| 4 | 120 Ω Termination resistor |
| 5 | TX enable |
| 6 | +24 V (100 mA) Output |

| Pin | Function |
|---|---|
| 1 | 120 Ω Termination resistor |
| 2 | RX TX |
| 3 | 0 V |
| 4 | +24 V (100 mA) Output |
| 5 | Not connected |
| 6 | TX enable |
| 7 | RX\ TX\ |
| 8 | RX\ TX\ (if termination resistors are required, link to pin 1) |

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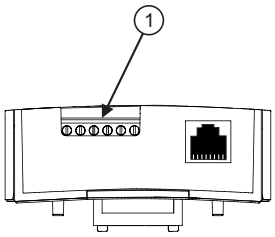
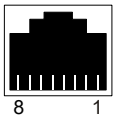
**Table 1-2 AI-485 24V Module and Terminal Information table**

| Module | Terminal Information |
|---|---|




AI-485 24V Adapter


| Terminal | Function |
|---|---|
| 1 | 0 V |
| 2 | RX\ TX\ |
| 3 | RX TX |
| 4 | 120 Ω Termination resistor (if termination is required, link to pin 2) |
| 5 | TX enable |
| 6 | +24 V user backup supply input (up to 600 mA). Voltage range is 24 Vdc ±20 % |

| Pin | Function |
|---|---|
| 1 | 120 Ω Termination resistor |
| 2 | RX TX |
| 3 | 0 V |
| 4 | +24 V (100 mA) |
| 5 | Not connected |
| 6 | TX enable |
| 7 | RX\ TX\ |
| 8 | RX\ TX\ (if termination resistors are required, link to pin 1) |

(1) - Terminal torque 0.23 Nm (2.0 lb in)

**NOTE**

The expected life of the adapter is 600 insertions into the drive.

**NOTE**

Recommend gG fuse rated at 1 A, 50 Vdc or a current-limiting power supply should be used. The power supply must be limited to 3 A continuous.

**NOTE**

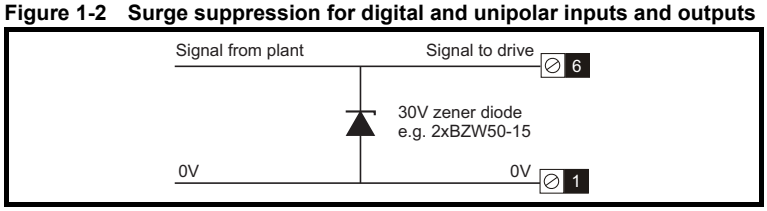
Any option modules connected to the 6-way terminal block will not receive a 24 Vdc power supply when attached to the drive which is powered from the AC mains supply only (for example, a remote keypad will remain un-powered if connected to the terminal block and 24 Vdc input is not connected to terminal 6. To power up the remote keypad, it must be connected to the RJ45 connector instead.

If the 24 Vdc user backup supply is connected at the same time on the terminals, then the remote keypad can be powered either via the RJ45 connector or the terminal block).

**NOTE**

The 24 Vdc user backup supply input is intended for use with a local power supply which is not directly connected to a DC distribution network. It offers immunity to electrical surges as for signal ports, according to IEC 61000-6-2. If this input is to be connected to a 24 Vdc distribution network, for example one which supplies machines and/or has cable lengths exceeding 30 m, it is recommended that additional protection against surges be provided, as shown in figure 1-2 below.

**Figure 1-2 Surge suppression for digital and unipolar inputs and outputs**




**NOTE**

This device complies with the requirements for conducted RF emissions according to CISPR11:2003, C3.1 level. However, in the case of an electromagnetically sensitive environment, additional common-mode filters (ferrite rings) may be required for the 24 Vdc user backup supply cable as well as the RS-485 communications cable, next to the device's terminals.