

**INDUSTRY-STANDARD MODEM OPTION (EJ5084-00)**

**USING A MODEM**

These instructions are for a *U.S. Robotics* modem product # USR5686D or equivalent with auto-answer feature.

If using Modbus protocol, use ASCII mode. RTU mode has tighter timing requirements that might prevent communications while using the modem. ASCII mode is enabled by configuration switch S1-4 in the ON position. Enable the RS-232 handshaking lines by setting the configuration switch S1-6 to the ON position. Connect the modem to TB11 as detailed in Figure 8. Set the baud rate to 9600 bps by setting the configuration switch S1-7 to the OFF position. Set the modem up for the settings listed below. The telephone cable plugs into a standard analog phone line. This modem will not work with office digital phone systems. The telephone line needs to be a dedicated analog phone line similar to most fax machines. Plug in the AC power supply. The host software needs to have the same protocol and serial parameters as the communications option.

**Modem DIP Switch Settings**

| <b>Switch</b> | <b>Position</b> | <b>Setting</b>               |
|---------------|-----------------|------------------------------|
| 1             | Down            | Data Terminal Ready override |
| 2             | Up              | Verbal result codes          |
| 3             | Down            | Display result codes         |
| 4             | Up              | Echo offline commands        |
| 5             | Up              | Auto answer on               |
| 6             | Up              | Carrier detect normal        |
| 7             | Down            | Load factory defaults        |
| 8             | Down            | Smart mode                   |

**JA5070-00**

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**CONNECTION DIAGRAM**  
(Figure 8)

