1782-JDC Quick Start Guide

Use this Quick Start Guide to quickly and easily install your 1782-JDC in your system. Follow the instructions below. For more details please see the 1782-JDC User's Manual at http://www.wrcakron.com/.pdf .

1. How to Install and Establish DeviceNet™ Communications

1. Remove the 1782-JDC from the box and connect your DeviceNet network cable to the 5-pin female (Phoenix-type) plug according to DeviceNet cable wiring specifications.
2. Make sure that the DeviceNet network is terminated properly.
3. The JDC Node Address (MacID) is set with the 6-position DIP switch to binary 63 at the factory. Make sure no other device on the network is set to 63. If the JDC address is changed, power cycle the unit by unplugging and reconnecting the DeviceNet cable.
4. The JDC baud rate is set to autobaud operation at the factory and can be changed through your configuration tool, such as DNspector, to 125k, 250k, or 500k baud rate. If the baud rate needs to be autobaud, you must do it via the EDS file parameter object. The new baud rate becomes when the unit is power cycled or a reset command is received by the Identity Object (Class 1, Instance 0, reset).
5. Make sure that there is power on the DeviceNet network and plug the cable into the 1782-JDC.
6. The 1782-JDC will undergo its initialization sequence, flashing both LED's red and green. After approximately 5 seconds, the Module Status LED (labeled "MS") will flash green. The Network Status LED (labeled "NS") will remain off. This condition occurs while the JDC is attempting to synchronize to the network baud rate.
7. The Module Status LED ("MS") will go on solid after the Device successfully determines the network baud rate. This requires devices on the network attempting to communicate with each other. The Network Status LED (labeled "NS") will begin to flash green. If it turns solid red, check for a duplicate MacID on the network. If it remains off, make sure that there are other devices *trying to communicate* on the network.
8. Once the Master recognizes the unit on the link and allocates the connection (initiates communications), The Network Status LED will be solid green. The device is now being actively scanned.

2. How to Install a Serial Network

1. The communication between your serial device(s) and the 1782-JDC is a RS232 3-wire, RS485 2-wire or 5-wire RS422/485 differential network. Connect an appropriate cable to your device.
2. Connect the other end of the cable to the JDC using the 3-point or 5-point terminal plug provided. Note the terminal markings on the JDC case.
3. Turn on power to the serial device and the JDC.
4. Set up the ASCII buffer sizes on the JDC. (The defaults are 20 and 20).

3. How to Read Serial Device Input Data from the JDC

1. Set up the receive size of your connection to equal the (**Max Number of Receive Chars + 3**) in your Master's scan table. The default value should be 23 (20+3).
2. Map the data from your IO response to your scanners' memory map and direct the master to begin polling.
3. Every time the serial buffer is updated the record number is incremented. If the record number is the same as the previous response, the JDC will not re-send the string.

4. How to Write Serial Output Data to the JDC

1. Set up the transmit size of your connection to equal the buffer size of the ASCII transmit buffer plus 2 (Default is 22 bytes).
2. Map the IO transmit data of the JDC according to DeviceNet consume assembly / transmit data string format.
3. Begin scanning the JDC. Enter data that you want to send on the serial link.
4. On receipt of a change to the record number, the JDC will transmit the data. If any data is in the receive buffer, the received data will be returned as a poll response. If the record number is the same as the previous response, the JDC will not re-send the string.