

DeviceMaster Serial Port Testing

Test the serial ports using the Test Terminal app in the PortVision Plus Program and the Loopback plug provided with the hardware. If the testing does not complete successfully, then I recommend that you give our tech support group a call at 763-957-6000.

If you need to create a loopback plug you can download the instructions at ftp://ftp.comtrol.com/RPort/HW_doc/Loopback/2000042_A.pdf

Control's utilities for Ethernet connected products are included with the PortVision Plus application from the 'Tools' menu.

Stop all applications that may be accessing the ports such as RAS, RRAS or any faxing or production software. See the appropriate manuals for instructions on stopping these services or applications. If another application is controlling the port, then Test Terminal will be unable to open the port and an error message will be shown.

Remember to restart the application once testing of the ports has been completed.

Testing The Control ports.

1a.) From the 'Tools>Applications' drop-down menu in PortVision Plus, select Test Terminal (WCOM2)

2a.) Port>openport>ComX (where X is the com port number to test)

3a.) Attach the Control supplied loopback plug onto the serial port of the controller

4a.) Port>openport>send test data

5a.) You should see the alphabet scrolling across the port. If so, then the port installed properly and is operational.

6a.) Port>openport>send test data (data should stop)

7a.) Port>openport>loopback test (This is a pass fail test and will take a second or two to complete)

8a.) Repeat for each port that needs testing.

9a.) Close test terminal

If both of these tests successfully complete, then the port is operational as expected. Close Test Terminal and start the application that will be using the serial ports.

There are, as you have seen, two tests in the Test Terminal and I will describe both.

Send Test Data: This is simply sending data out the transmit line to the 'Loopback' plug which has the transmit and receive pins connected thus sending the data back through the Receive line to the Test Terminal app which then displays the received data in the terminal window for that port. The send test data test is only testing the transmit and receive signal lines and nothing else. This test will work in either RS232 or RS422 modes as both modes have transmit and receive capability. A failure in this test will essentially prevent the port from working in any manner.

Loopback Test: This test using the Control supplied loopback is testing all of the modem control signals, RTS, DTR, CTS, DSR and CD. When a signal is made HI in one line the corresponding signal line will indicate this. The Loopback test changes the state of the lines and looks for the corresponding state change. It will then send certain commands and confirm the transmission and receipt of these commands. If it successfully recognizes all of these changes, the port passes. A failure on this test is not necessarily critical, as it will depend on what is connected and how many signal lines are in use. For example, if you are using RS232 in 3-wire mode (Transmit, Receive and Ground) a failure will cause no discernable issue since the other signals are not being used. If the port is configured for use as either RS422 (or with some products RS485) this test will fail and is expected to fail since RS422 (and RS485) do not have the modem control signals that are present in RS232 that this test is designed for.