



# Hardware and Software Installation Quick Start

## Product Overview

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The RocketPort Jet adapter is a PCI controller board that you can install to upgrade a PC computer to have multiple RS-232 (UART) ports. The RocketPort Jet low-profile form factor can fit into either a low-profile PCI or standard size PCI slot that supports 3.3 and 5.0V PCI bus architecture. See [Product Specifications](#) on Page 6 for more detailed information about the RocketPort Jet.

**Note:** *Make sure that you have performed any necessary procedures in [Pin Assignments and Jumper Settings](#) on Page 2 before installing the RocketPort Jet.*

The RocketPort Jet supports the following operating systems:

- DOS, see the *readme.txt* file in the *DOS* subdirectory on the CD for DOS set up information.
- Linux<sup>®</sup>, the Linux driver is built into the kernel, see the *rp\_jet\_linux.txt* file in the *Linux* subdirectory on the CD for set up procedures.
- Windows<sup>®</sup> NT
- Windows 2000, Windows XP, and Windows Server 2003

**DOS:** See the *readme.txt* file in the *DOS* subdirectory on the CD for DOS set up information.

**After Microsoft<sup>®</sup> driver installations, configure the correct data rate at 14.745MHz frequency or by automatic frequency detection for proper operation, excluding Windows NT.**



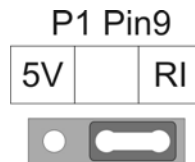
## Pin Assignments and Jumper Settings

Use the appropriate discussion for your RocketPort Jet model.

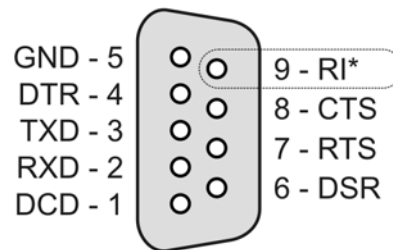
- *2-Port* (below)
- [4-Port](#) on Page 3

### 2-Port

The following drawing illustrates the jumper settings for the RocketPort Jet 2-port model.



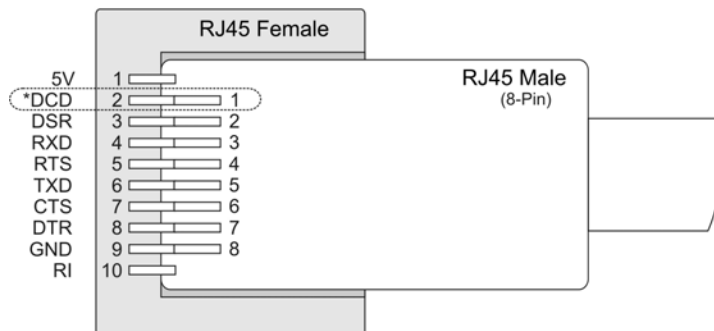
\*Use the **P1 Pin9** Jumper to determine which signal appears on pin 9 of the DB9M connector. (See the illustration below)



### P2 Jumper

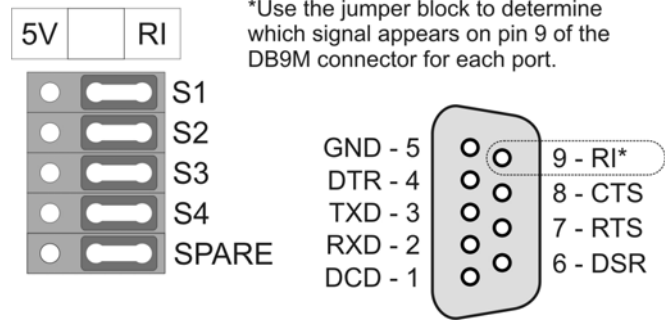


\*If you are using an 8-Pin RJ45 cable/connector, use the **P2 Jumper** to determine which signal appears on pin 2 of the 10-Pin jack and thus Pin 1 of the 8-Pin plug. (See the illustration below)



## 4-Port

The following drawing illustrates the jumper settings for the RocketPort Jet 4-port model.



## Windows 2000, Windows XP, and Windows Server 2003 Installations

Use the following procedure to install the RocketPort Jet in a Windows 2000, Windows XP, or Windows Server 2003 system.

1. Check to see if you need to change any jumper settings using [2-Port](#) on Page 2 or [4-Port](#) on Page 3.
2. Power off the system.
3. Insert the RocketPort Jet into an available PCI slot.

**Note:** Make sure that you have performed any necessary procedures in [Pin Assignments and Jumper Settings](#) on Page 2 before installing the RocketPort Jet.

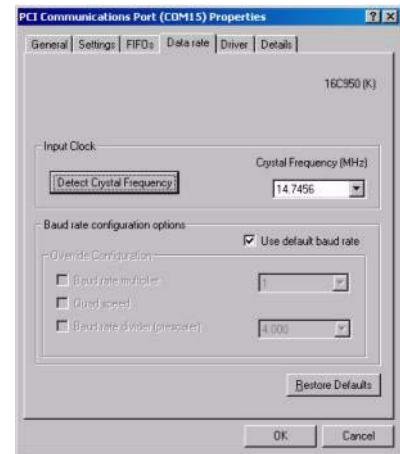
4. Power up the system and insert the *RocketPort Jet Driver and Documentation* CD.
5. When the operating system displays the *Found New Hardware Wizard*, click **Next**.
6. Select **Search for a suitable driver for my device (Recommended)**, click **Next**, and make sure the *Driver and Documentation* CD is in the CD-ROM or DVD drive.
7. Under **Specify a location** insure that it is the only option checked and click **Next**.
8. Enter the letter for the CD-ROM or DVD drive and click **Browse**. For example: **d:\** or **e:\**.
9. Browse to the location of the driver, for example: **E:\Windows**, and click **OK**.
10. When the *Wizard* indicates that it found a driver for the UART, click **Next**.
11. Select **Finish**.
12. Repeat Steps 5 through 11 for the PCI bridge and each port on the RocketPort Jet.



**After Microsoft® driver installations, configure the correct data rate at 14.745MHz frequency or by automatic frequency detection for proper operation.**

13. Use the following procedure to verify that the RocketPort Jet is installed correctly and to set the frequency settings for Windows 2000, Windows XP, and Windows Server 2003.
  - a. Right-click **My Computer**, select **Manage**, and click **Device Manager**.
  - b. Double-click **Multifunction adapters**, if there is no yellow ! or ? before the following entries the driver has started correctly:
    - OX16PCI954 PCI UARTs
    - OX16PCI95x PCI bridge

- c. Double-click **Ports**, if there is no yellow ! or ? before the following entries, the driver has started correctly:
  - PCI Communications Port (COM3)
  - PCI Communications Port (COM4)
  - PCI Communications Port (COM5) (*4-port installations, only*)
  - PCI Communications Port (COM6) (*4-port installations, only*)
- d. If there are any yellow ! or ?, de-install those items and reinstall the device driver.
- e. To configure the RocketPort Jet, right-click the **PCI Communications Port (COM3)** and select **Properties** from the context menu.
- f. Select the tab labeled **Data rate**, select the **Detect Crystal Frequency** button to automatically select the input clock.
- g. Select the **Use default baud rate** option under the *Baud rate configuration options* area.
- h. Repeat Steps e through g for each COM port.



## Windows NT Installations

Use the appropriate procedure or procedures to install the device driver for Windows NT 4.0.

- RocketPort Jet **4-port** models, skip to [Device Driver Installation](#)
- RocketPort Jet **2-port** models, first go to [2-Port \(Only\) Installation Preparation](#).

**Note:** *Before the driver installation (2-ports only), the DOS Utilities need to run in a pure DOS environment, not in a "DOS box." Use the following procedure to create a pure DOS environment and install the driver for Windows NT 4.0.*

### 2-Port (Only) Installation Preparation

1. Download the latest copy of the FreeDOS kernel to a temporary location, for example, `c:\temp\rp_jet`. At the time of publication, this link worked; <http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/distributions/1.0/fdboot.img>.
2. Download **rawrite** from the Comtrol web site at <http://www.comtrol.com/support/download.asp?partnumber=1800050> to the same temporary location as the FreeDOS kernel.
3. If necessary, format a 1.44MB diskette.
4. Execute **rawrite** from the temporary location.
5. Enter the disk image source file name, for example, **fdboot.img** and press **Enter**.
6. Enter the target diskette drive, for example, **a:** and press **Enter**.
7. Insert a formatted 1.44MB diskette and press **Enter**.

8. Insert the *RocketPort Jet Driver and Documentation* CD or download and unzip this file (<http://www.comtrol.com/support/download.asp?partnumber=1800292>).
9. Copy the **NTutil.exe** and **Set\_NT.bat** files from the **\WinNT\_Setting** subdirectory on the CD to the diskette. Do not remove the diskette because you need to reboot the system in the next step.
10. Shutdown the system.
11. Check to see if you need to change any jumper settings using [2-Port](#) on Page 2.
12. Insert the RocketPort Jet into an available PCI slot and power up the system.
13. At the DOS prompts, execute **Set\_NT.bat** from the diskette.
14. Remove the bootable diskette and restart the system.
15. Go to [Step 2](#) in the *Device Driver Installation* subsection to complete the installation.

### Device Driver Installation

This this procedure to install the device driver for Windows NT.

1. **4-Port, only**, check to see if you need to change any jumper settings using [4-Port](#) on Page 3 and then insert the RocketPort Jet into an available PCI slot and power up the system.
2. Browse the *RocketPort Jet Driver and Documentation* CD to the **\Windows\WinNT4\** subdirectory or download and unzip (<http://www.comtrol.com/support/download.asp?partnumber=1800291>), and execute the **Install\_Serial.exe** file.
3. When the wizard displays the *Windows NT4 Device Installer*, click **Next**.
4. When the wizard displays **OxSer.INF**, select **INSTALL** and click **Next**.
5. Select **YES** to accept the license agreement.
6. When the wizard displays *The operation was completed successfully* and the driver has been started, click **Exit**.

### Verifying Installation Under Windows NT

Use the following procedure to verify that the RocketPort Jet was installed correctly.

1. Right-click on **Start** icon, select **Settings** and **Control Panel**.
2. Double-click on **Ports** and if you see the additional COM ports, the driver has started correctly.

## Product Specifications

| <b>Hardware</b>             |                          |
|-----------------------------|--------------------------|
| Maximum Cards/System        | 4                        |
| Bus Interface Specification | PCI and PCI-X Compatible |
| Board Dimensions            | 4.75" x 2.5"             |
| Product Weight (card only)  | 3.5 oz                   |
| 2-Port                      | 10.3 oz                  |
| 4-Port                      |                          |

| <b>Electrical Specifications</b>   |  |               |
|------------------------------------|--|---------------|
| <b>Current Consumption</b>         | <b>2-Port</b>  | <b>4-Port</b> |
| +5VDC                              | <u>46 mA</u>   | <u>80 mA</u>  |
| +12VDC                             | 34 mA  | 47 mA         |
| -12VDC                             | 42 mA  | 94 mA         |
| <b>Power Consumption (maximum)</b> | <b>2-Port</b>  | <b>4-Port</b> |
|                                    | <u>1.4 W</u>   | <u>2.3 W</u>  |
| <b>ESD Surge Protection</b>        | Provides minimum of 15KV for a duration of 1ns @ 200A. |               |

| <b>Environmental Specifications</b>        |                                       |
|--|---------------------------------------|
| <b>Air Temperature:</b>                    |                                       |
| System on                                  | 0 to 60° C                            |
| System off                                 | -20 to 85° C                          |
| <b>Operating Humidity (non-condensing)</b> | 5% to 95%                             |
| <b>Altitude</b>                            | 0 to 10,000 Feet                      |
| <b>Heat Output</b>                         | <b>2-Port</b> <b>4-Port</b>           |
|  | <u>4.8 BTU/Hr.</u> <u>7.9 BTU/Hr.</u> |
| <b>MTBF (Mean Time Between Failures)</b>   | <b>2-Port</b> <b>4-Port</b>           |
|  | <u>42.8 Years</u> <u>42.1 Years</u>   |

| <b>Serial Communications</b>         |                       |
|--------------------------------------|-----------------------|
| <b>Connector Type:</b>               |                       |
| 2-Port (includes RJ45F to DB9 cable) | (1) DB9M(1) RJ45F     |
| 4-Port                               | (4) DB9 fan-out cable |
| <b>Software Interface</b>            | RS-232                |
| <b>Baud Rate</b>                     | 110 to 921.6Kbps      |
| <b>Device Driver Data Control</b>    |                       |
| Data Bits:                           | 5, 6, 7 or 8          |
| Parity                               | Odd, Even, or None    |
| Stop Bits                            | 1 or 2                |
| Ring Indicator                       | Yes                   |

| <b>Regulatory Approvals</b>   |
|---|
| <b>Emission:</b><br>European standard EN55022; Amendment A1<br>IEC1000-3-2/EN61000-3-2 Harmonic<br>IEC1000-3-3/EN61000-3-3 Flicker<br>FCC PART 15, Subpart B: Class B limit   |
| <b>Immunity:</b><br>EN55024:<br>IEC 1000-4-2: EN61000-4-2: ESD<br>IEC 1000-4-3: EN61000-4-3: RF<br>IEC 1000-4-4: EN61000-4-4: Fast Transient<br>IEC 1000-4-5: EN61000-4-5: Surge<br>IEC 1000-4-6: EN61000-4-6: Conducted disturbance<br>IEC 1000-4-8: EN61000-4-8: Magnetic field<br>IEC 1000-4-11: EN61000-4-11: Dips and Voltage Variations |
| <b>Safety:</b><br>IEC 60950/EN60950<br>CSA C22.2 No. 60950/UL60950 Third Edition  |
| <b>Other:</b><br>CE Mark<br>FCC Part 15: Subpart B: Class B<br>European Standard: 2002/95/EC Directive (RoHS)   |

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## Technical Support

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If you need technical support, contact Control<sup>®</sup> using one of the following methods.

| <b>Contact Method</b>      | <b>Corporate Headquarters</b>   |
|----------------------------|---|
| Web site                   | <a href="http://www.comtrol.com">http://www.comtrol.com</a>                   |
| Customer Support/Downloads | <a href="http://www.comtrol.com/support/">http://www.comtrol.com/support/</a> |
| Phone                      | 763.494.4100  |

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