

PII-108

**RS-232 Dual I/O Card
User Manual**



Edition 1.01

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FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT

Warning: This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

FCC ID : E5V5K4PII108

MADE IN TAIWAN R.O.C.

Checklist

Your RS-232 package contains the following:

- One RS-232 Dual I/O Short Card.
- One user manual.
- One serial port cable.

The following does not apply to any country where such provisions are inconsistent with local law:

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Introduction

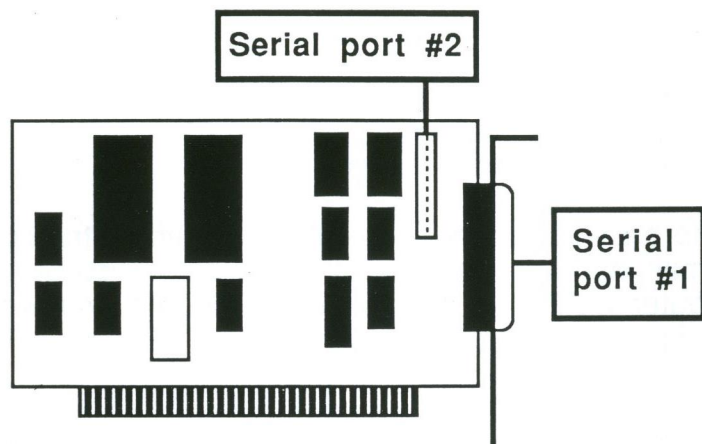
You can rest assured of having made a wise choice in buying the RS-232 Dual I/O Short Card to extend the data I/O functions of your IBM PC[®], PC/XT[®], PC/AT[®] or compatible computers. With its two serial ports, the RS-232 will expand the interfaces of your computer so that you will be able to link up with:

- Modems
- Serial printers
- Other serial devices

The easy-to-understand, well illustrated instructions in this manual ensure that even if you are a newcomer to the computer world, you will have the RS-232 installed and running with a minimum of effort.

Card layout and ports

The illustration below will familiarize you with the layout of the RS-232 Dual I/O Card and the location of the two ports:



Serial ports

Serial port #1 is the 25-pin connector, J1, extending through the mounting bracket on the RS-232 card. A modem, a serial printer or another device using a RS-232 interface may be connected to serial port #1.

Serial port #2 is a 10-pin connector, J2, located on the RS-232 card. A flat cable has been included with the RS-232 card for connection of serial port #2 to serial devices. A modem, a serial printer or another device using a RS-232C interface may be connected to serial port #2.

Serial asynchronous communication

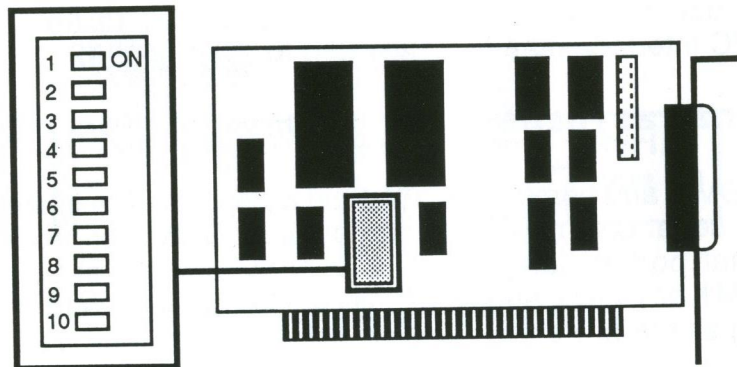
IBM® and compatible personal computers are limited to two serial communication ports called COM1 and COM2. Serial port #1 on the RS-232 card may be set up as COM1 or COM2 and the same is true of serial port #2 as long as the two serial ports do not have the same name.

NOTE: COM2 is a factory setting for serial port #1 and COM1 is the factory setting for serial port #2.

To use a communication line, you must make sure that asynchronous communication parameters (baud rate, parity, data bits and stop bits) of the sending and receiving devices are properly set. This is done using PC-DOS®'s MODE command or BASICA®'s OPEN command. Consult the appropriate manual for details. The RS-232 card's serial ports are fully compatible with the parameter ranges specified by the OPEN or MODE commands.

Setting up serial ports

If your present system has no serial port, both of the serial ports on the RS-232 card are ready as shipped, and you may connect the ports to serial devices without any reconfiguration. Otherwise, you will have to change the settings of the DIP switch on the RS-232 card. To make these changes, first find the DIP switch by referring to the illustration below:



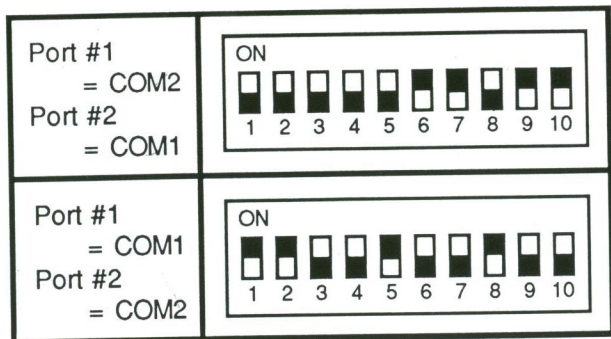
For the appropriate DIP switch settings, refer to the tables on the next page.

If your system already has a serial port

If your system already has one serial port, addresses will conflict upon using the RS-232 card as is. First, find out if the existing port in your system is named COM1 or COM2. Then set port #1 on the RS-232 card so that it has a unique name. Port #2 on the RS-232 card will be disabled. Refer to the table below:

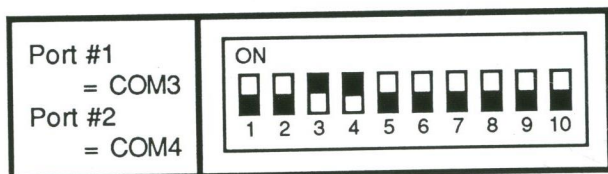
Port #1 = COM1 Port #2 disabled	<p>ON</p> <p>1 2 3 4 5 6 7 8 9 10</p>
Port #1 = COM2 Port #2 disabled	<p>ON</p> <p>1 2 3 4 5 6 7 8 9 10</p>

If your computer does not have a serial port, you may use the card as is. Port #1 and #2 may be COM1 or COM2 as long as the ports have distinct addresses. The DIP switch settings are shown below:



Setting up COM3 and COM4

As was noted previously, IBM® and compatible personal computers are limited to two serial communication ports called COM1 and COM2. However, if you can write software to enable COM3 and COM4 in your system, the RS-232 card provides support for this new configuration. The DIP switch settings are shown below:



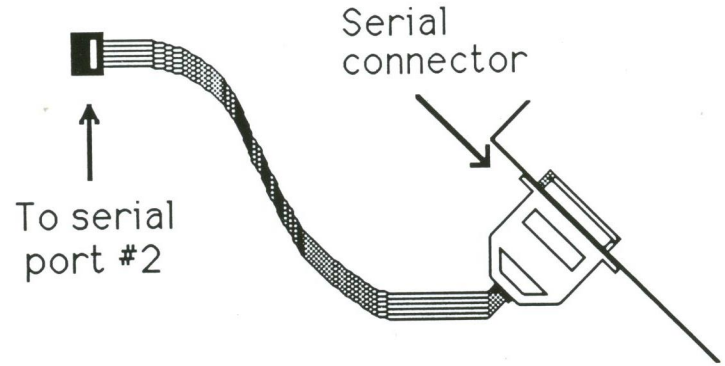
Any software written for this new configuration should include IRQ settings for COM3 and COM4. Because such IRQ settings may also depend on the particular application software used, it is advised that you find the specific IRQ settings needed before you write this software.

IRQ settings available on card

The DIP switch on the RS-232 card controls the IRQ settings if you make the serial ports COM1 and COM2. For the correct settings, simply set the DIP switch as shown on pages 5 and 6.

If you wish to know exactly which switches on the DIP switch control the IRQ settings, refer to the illustration below:

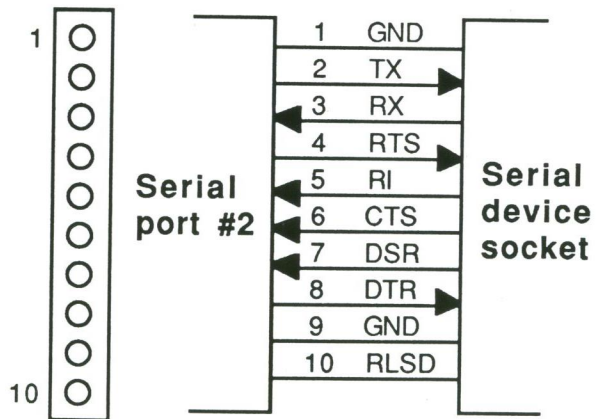
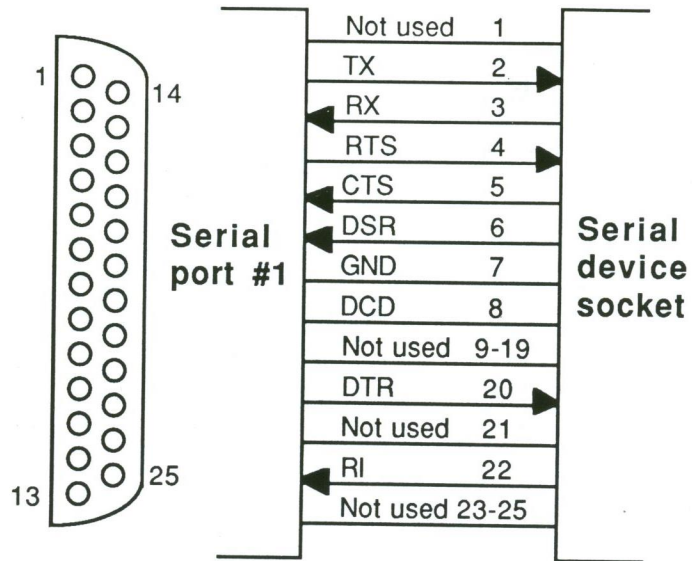
Port #1 = IRQ3	<div style="border: 1px solid black; padding: 5px;"> ON </div>
Port #1 = IRQ4	<div style="border: 1px solid black; padding: 5px;"> ON </div>
Port #2 = IRQ3	<div style="border: 1px solid black; padding: 5px;"> ON </div>
Port #2 = IRQ4	<div style="border: 1px solid black; padding: 5px;"> ON </div>



Note that the red wire on the cable will be attached to pin 1 of serial port #2 on the RS-232 card. Pin 1 is marked on the card. The pinouts for serial port #2 are shown below:

RS-232 connector for serial port #2

To connect a serial device to serial port #2, it is necessary to use the nine-wire ribbon cable with the ten-pin rectangular connector on one end and the male 25-pin connector on the other. The female connector will be plugged into port #2 of the RS-232 card and the male connector will be plugged into the RS-232 port of a serial device. Refer to the illustration below:



Configuring application software

Most communications software can be configured to send data to either COM1 or COM2. The default is usually COM1. But what if, for example, your modem is connected to COM2 and you wish to send data through it to a remote location?

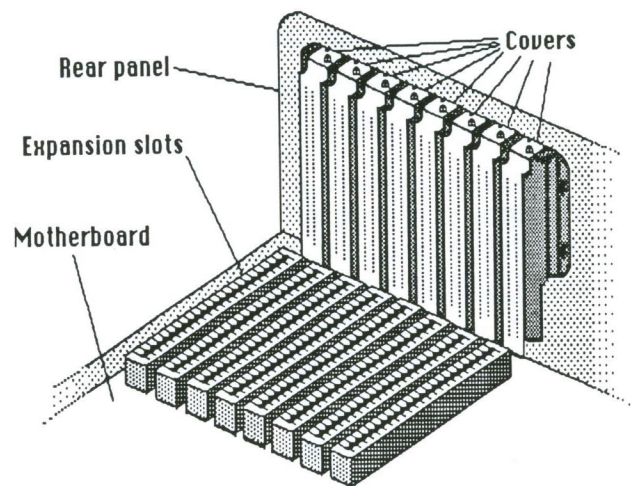
It may be necessary to reconfigure your application software so that the data is routed to COM2 rather than COM1.

In many cases, the easiest way to accomplish this is to redirect temporarily the activities of COM1 to COM2. This may be done using DOS®'s MODE command. The MODE command can redirect output destined for a printer port to a serial port.

NOTE: If you redirect data to a different output port, be sure that the output port's parameters are properly set to communicate with the device to which it is connected. See your DOS® manual for instructions.

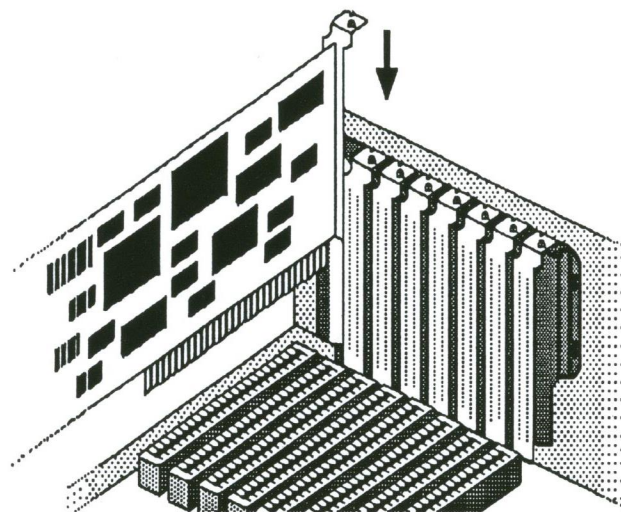
Installation

Refer to your computer's user manual to open it up. With a nut driver or a small screw driver (usually a Phillips) remove the cover at the back of an unused slot. Keep the screw to attach the card. Refer to the illustration below:



Before you install the card in your computer, make sure the computer is unplugged, and then remove any static electric charge from your body by placing one hand on the power supply box inside your computer.

Pick up the RS-232 card by its non-conductive edges. Avoid touching the connector contacts or any components with your hands as this could damage the card. Insert the card into an empty expansion slot as shown in the following illustration:



Attach the mounting bracket of the card securely to the rear panel of your computer with the screw you saved.

Finishing up

If you have any other cards to install, put them in now following the same steps as those for the RS-232 card. When all of your new cards have been installed, you can close your computer.