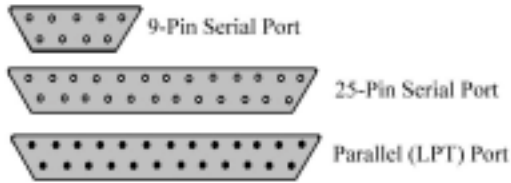


Common Com Port Problems

COM vs. Serial Ports



A serial port is a physical connector on the back of your computer that allows for the input and output of data. There are two different types of serial ports: 9-pin and 25-pin. Since the interface cable that comes with our loggers is for a 9-pin serial port, if you have a 25-pin port, you have to purchase a 25-pin female to 9-pin male adapter. These adapters can be purchased at most computer stores.

Note: Be sure not to confuse a parallel (LPT) port, which has 25 female pins, with a 25-pin serial port, which has 25 male pins.

A COM port is a software "port" configured in Windows. Each serial port and your internal modem are assigned a unique COM port. IRQ Channels (Interrupt Request channel) are used by the COM port to request time from the CPU. If the device needs processor time, it alerts the CPU by sending a signal on its IRQ Channel. Because there are so many devices inside of a computer, and very few IRQ channels, COM ports share IRQ channels by default, as you can see in the table below.

Port	IRQ
COM1	4
COM2	3
COM3	4
COM4	3

Changing IRQ Channels

Devices that share an IRQ address cannot communicate with the processor at the same time. It is possible to share IRQ channels, but should only be done when no other IRQ channels are available. If you use a serial mouse, do not configure its port to share an IRQ address with anything else.

In general there are two serial ports on the back of a computer, although when computers have USB ports, some manufacturers only include one serial port. Many devices use these ports to communicate, such as: mice, modems, digital cameras, and some printers. If you have more serial devices than you have serial ports, USB to Serial Converters are available. See this page for a list of models that we recommend. <add link here>

Note: Some display adapters (especially S3, 8514A and ATI mach8) have an address conflict with COM4 ports. You can work around this by using another COM port or replacing your display adapter.

Testing COM Port conflicts in Windows 95/98

To check to see if the COM port is conflicting with any other hardware:

- Right click on the My Computer icon and choose *Properties*.
- Switch to the *Device Manager* tab.
- Expand the *Ports (COM & LPT)* tree by clicking on the [+]
- Select the serial port and then click the *Properties* button.
- Switch to the *Resources* tab.
- If the *Conflicting device list* field displays "No conflicts" then your COM port is free, otherwise there is a hardware conflict with this port.

Testing COM Port conflicts in Windows NT

To check to see if the COM port is conflicting with any other hardware:

- A. Go under the Start menu, under Programs and choose Command Prompt
- B. Type WINMSD at the Command Prompt
- C. Switch to the *Resources* tab
- D. Make sure that the device named Serial is using a unique IRQ

Testing COM Port conflicts in Windows 2000

To check to see if your COM port is conflicting with any other hardware:

- A. Right click on the My Computer icon and choose *Properties*.
- B. Switch to the *Hardware* tab.
- C. Click the *Device Manager...* button.
- D. Expand the *Ports (COM & LPT)* tree by clicking on the [+]
- E. Select the port and then click the *Properties* button.
- F. Switch to the *Resources* tab.
- G. If the *Conflicting device list* field shows “No conflicts” then your COM port is free, otherwise there is a hardware conflict with this port.

Bad Serial Cables

If your logger or Tattletale repeatedly breaks connection, check for any loose connection on the cable. If both ends of the cable are firmly connected, try running *Test Port...* under the *Help* menu.

Note: If the port is functioning correctly, it should show a good connection when the paper clip is attached AND show no connection when the paper clip is not attached.

Software Conflicts

Software conflicts are far more common than hardware conflicts. Many programs, such as fax software and Palm HotSync software, use the serial port and can prevent other programs from using it.

To test whether or not there are software conflicts, open Task Manager by pressing *Ctrl+Alt+Del*. The only programs that Windows requires to run are Explorer and Systray. To stop a program, select the program and click End Task. Through process of elimination any software that is preventing communication can be located.

Note: Any changes you make inside of Task Manager will be restored once Windows is restarted.

If you use a Palm Computing Connected on the same serial port as the data loggers, make sure that the HotSync Manager software is closed.

- A. The icon in the Windows System Tray (bottom right of your screen) will tell you if it is open. If it is open, the HotSync Manager is using one of your COM ports, regardless of whether or not you have your Palm cradle plugged into your computer.
- B. Right click on the icon.
- C. Choose Exit from the popup menu.

