



Serial Ports Troubleshooting

Rev. 20130322



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I. Serial Ports Troubleshooting

Before **Gym Assistant** can function with serial ports, you must ensure that the serial ports are installed and available in Windows.

A. Opening Device Manager

You must first see if the computer recognizes the serial port in **Device Manager**.

- In **Gym Assistant**, select “**Help/Troubleshooting/Device Manager.**”

1. In Device Manager find the **Ports (COM & LPT)** section.

Note: If this section does not exist then no serial ports are currently installed.



2. If a serial device shows up under “**Other devices**” or if the device displays an error icon (see below), then you will need to find and install the proper drivers.



3. To see what driver may be installed for a device right-click on the device and select **Properties**, then click the **Driver** tab.
4. To update or install a driver for the device:
 - a. Right-click on the device and select **Update Driver Software**.
 - b. If you have the CD that came with the device, put the CD into the computer and follow directions below in the “**Installing Drivers from CD that came with Device**” section for either XP or Windows 7/Vista below.
 - c. If you **CANNOT** find the CD that came with the device, then download the drivers from the **Gym Assistant website**. See the “**Download/Install Drivers from GymAssistant.com website**” section below.

B. Installing Drivers from the CD that came with the Device – Windows XP

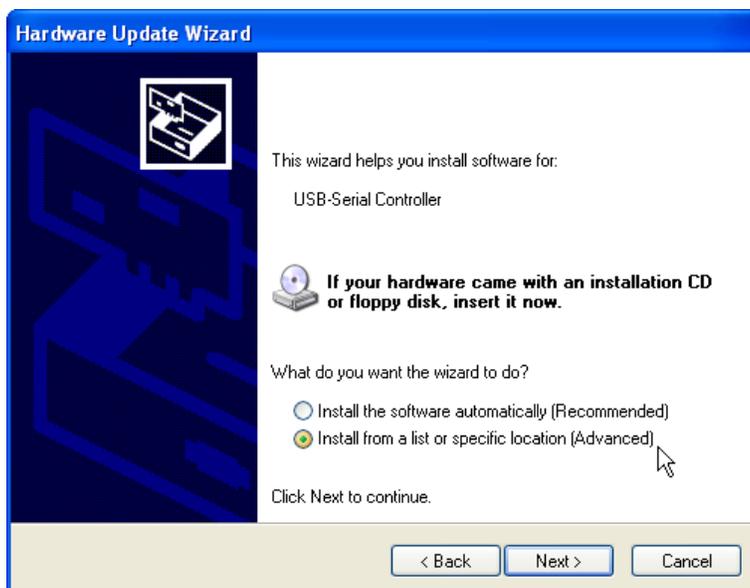
1. If you have the CD that came with the device, put the CD into the computer.
2. Right-click on the device and select **Update Driver**.



3. The **Hardware Update Wizard** will ask “Can Windows connect to Windows Update to search for software?”

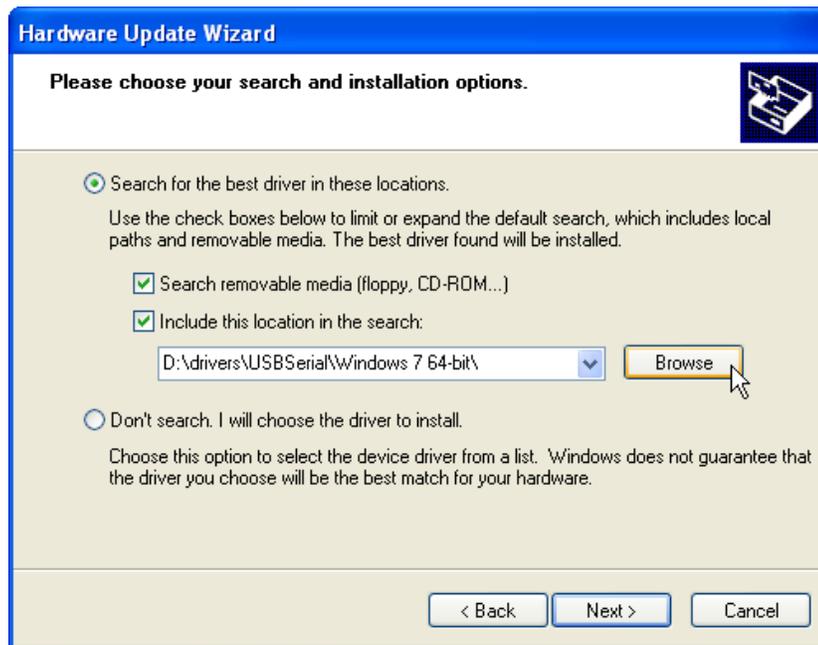


4. Select “**No, not this time**” and click the “**Next**” button.
5. The **Hardware Update Wizard** will ask “What do you want the wizard to do?”



6. Select “**Install from a list or specific location (Advanced)**” and click the “**Next**” button.

7. In the “**Please choose your search and installation options**” window:
 - a. **Select “Search for the best driver in these locations.”**
 - b. Check the box “**Search removable media (floppy, CD-ROM...)**.”
 - c. Check the box “**Include this location in the search:**”
 - d. Click the “**Browse**” button and navigate to the installation CD and locate the folder containing the appropriate drivers for this device.

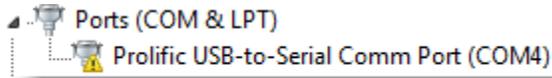


Note: Many installation CDs will contain drivers for multiple devices, so look around until you find the best choice for this device.

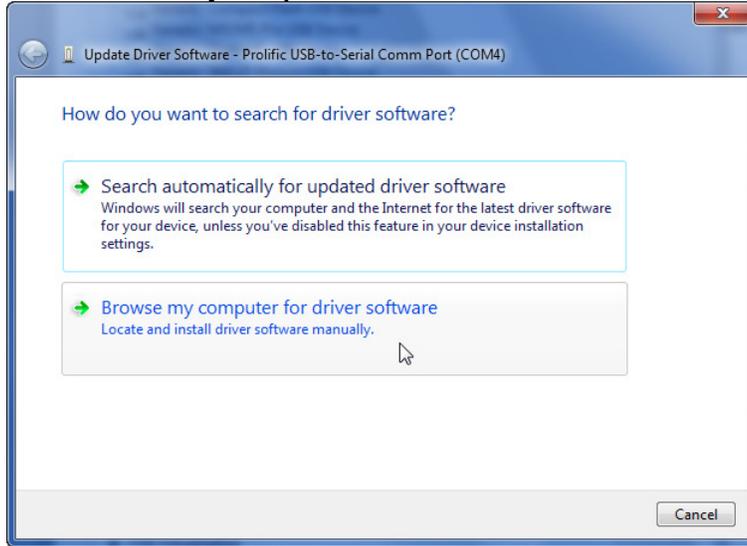
8. You will need different drivers for each version of Windows (e.g. XP, Windows 7/Vista 32-bit, Window 7 64-bit).
9. Once you have selected the **Drivers** folder click the “**Next**” button to install.

C. Installing Drivers from the CD that came with the Device – Windows 7 or Vista

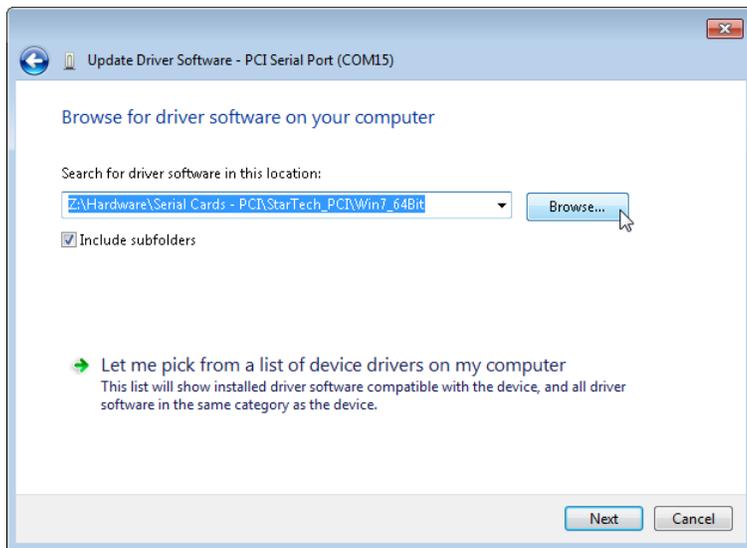
1. If you have the CD that came with the device, put the CD into the computer.
2. Right-click on the device and select “**Update Driver Software.**”



3. Click “**Browse my computer for driver software.**”



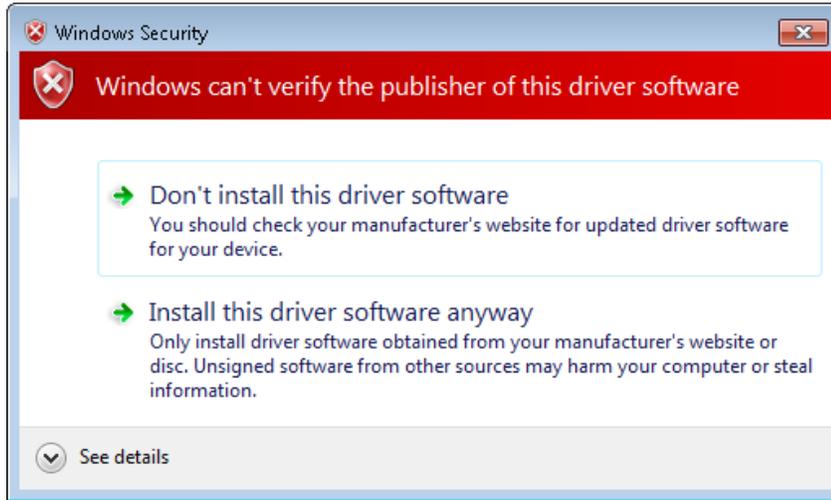
4. Click the “**Browse**” button and navigate to the install CD.



5. Locate the folder containing the appropriate drivers for this device.
Note: Many installation CDs will contain drivers for multiple devices, so look around until you find the best choice for this device.
6. You will need different drivers for each version of Windows (e.g. XP, Windows 7/Vista 32-bit, Window 7 64-bit).
7. Once you have selected the **Drivers** folder click the “**Next**” button to install.

D. Downloading/Installing Drivers from GymAssistant.com

1. Drivers for serial devices sold by us can be downloaded from the Gym Assistant website at <http://www.gymassistant.com/support/installers/utilities/index.php>
2. While installing one of our drivers you may see a window with the message “**Windows can’t verify the publisher of this driver software,**” if so click “**Install this driver software anyway.**”

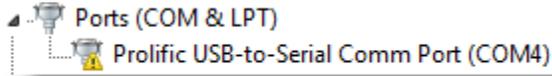


3. After installing a new driver you may be prompted to restart the computer.
Note: You **MUST** restart the computer before the device will function properly. If you don't restart the computer, then you may end up troubleshooting a problem that you yourself caused.
4. If the device status **STILL** displays an error icon (yellow triangle with "!") in the **Device Manager** then you may need to force the device to re-initialize.
There are a few ways to do this:
 - a. In **Device Manager**, select “**Scan for Hardware Changes**” from the **Action** menu (Windows 7 or Vista).
 - b. If the device connects by USB:
 - i. Have you unplug the device(s) from the USB port.
 - ii. Wait for 5 seconds and then plug the device(s) back into the USB port.
 - iii. Windows should automatically initialize the device drivers.
5. If you are still experiencing problems, please don't hesitate to contact us:
Telephone: 1-877-496-2778 Ext. 2
Email: Support@GymAssistant.com

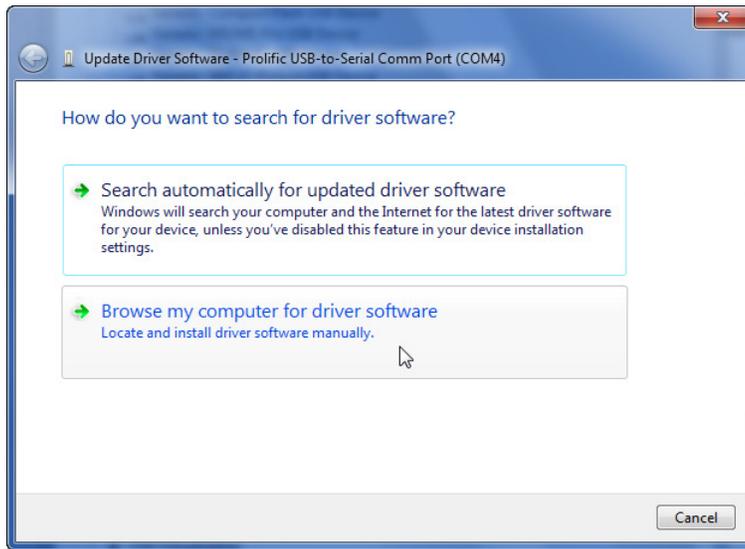
E. Rolling Back to a Previous Driver Version

We have found that **Windows Update** may install a newer version of the **Prolific USB/Serial adapter** driver, but the newer version may not work. We cannot explain why this happens, but we can fix the problem.

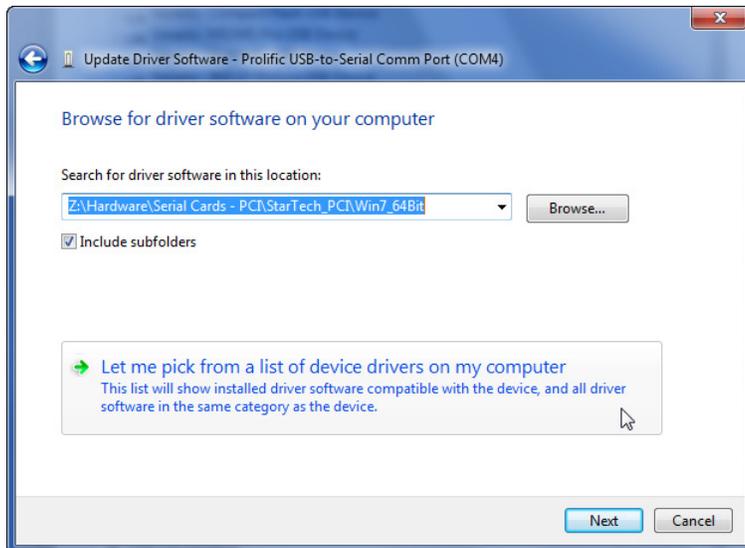
1. Find out your computer's **Windows** version, by clicking the **Start** button, then right-clicking on **Computer** and selecting "**Properties**."
2. Right-click on the device and select "**Update Driver Software**."



3. Click "**Browse my computer for driver software**."

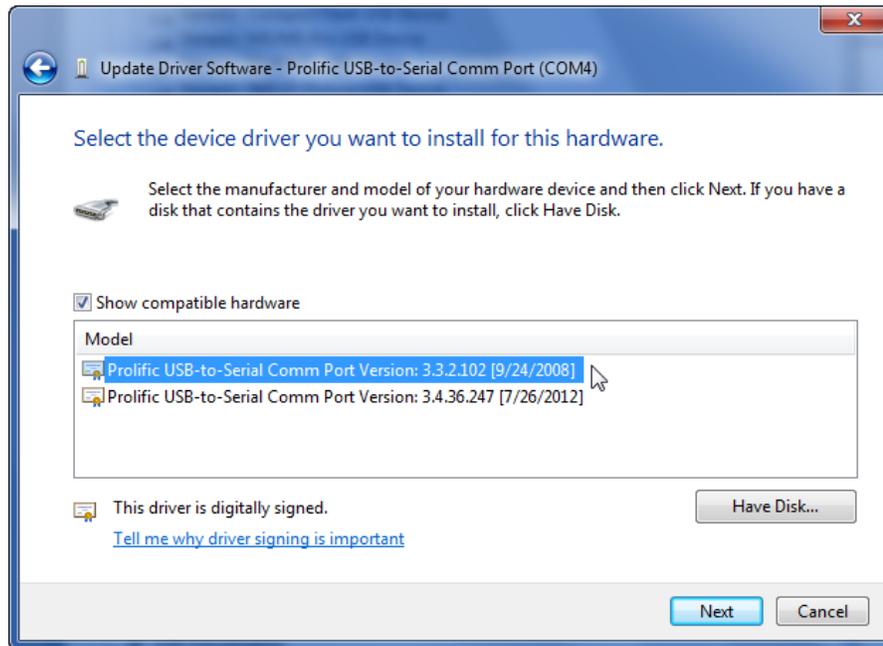


4. Click "**Let me pick from a list of device drivers on my computer**."



5. Check the box "**Show compatible hardware**," if it is not checked.
Note: If there are drivers available for this device then they will appear in the list.

6. Select the oldest driver version (for the **Prolific** chipset, this will be dated 2008).



7. Click the **“Next”** button.
8. Right-click on the device and select **“Update Driver”**
9. After installing a new driver you may be prompted to restart the computer.
Note: You **MUST** restart the computer before the device will function properly. If you don't restart the computer, then you may end up troubleshooting a problem that you yourself caused.
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II. Appendix A: USB-to-Serial Adapters – Differences Explained

USB-to-Serial adapters are easy to install (just install the drivers), but they are less dependable than installed PCI serial cards. Once drivers are installed, the USB/Serial adapter will appear in Windows as a COM (serial) port.

USB/Serial adapters utilize one of two chipsets: **Prolific** or **FTDI**. Unfortunately there is no way to distinguish between the two visually. You can only determine which chipset is present by looking in Device Manager.

A. Prolific Chipset Adapters

Prolific chipset adapters are generally less-expensive, but less reliable.

- One major disadvantage of the Prolific chipset is that if you connect the adapter to a different USB port the computer will assign it a new COM port number.
- This is a problem if the application is expecting to see a device on a specific COM port.

B. FTDI Chipset Adapters

The **FTDI** chipset is slightly more expensive, but it has a few advantages:

- Windows will usually be able to install drivers automatically.
- Moving the adapter to another USB port will not change the adapter's assigned COM port.
- FTDI adapters are less prone to losing connection with the computer.

Access Control applications should always use the FTDI chipset rather than the Prolific chipset.

III. Appendix B: PCI Serial Ports – When are they necessary?

For access control applications a USB-to-Serial adapter is simply not dependable enough. USB devices (and USB/Serial adapters especially) will sometimes lose connection with the computer. The only way to reset the connection is to disconnect/reconnect the device or restart the computer. Needless to say, this is not a good thing for a 24/7 access control system.

An installed PCI serial port is much more reliable than any USB/Serial adapter, so we strongly recommend that all access control systems utilize installed ports rather than USB/Serial adapters.

USB-to-Serial adapters are easier to deploy, but their use will almost always result in problems for members (usually in the middle of the night), club owners/managers, and ultimately Gym Assistant Support staff.

That said, the current trend in the industry is to push all-in-one computers integrated into the display. This type of computer will almost never have expansion slots available, and so will require USB/Serial adapters rather than PCI serial ports.

Therefore, we do not recommend all-in-one computers for use with Access Control.

IV. Appendix C: All PCI Slots Are Not Created Equal

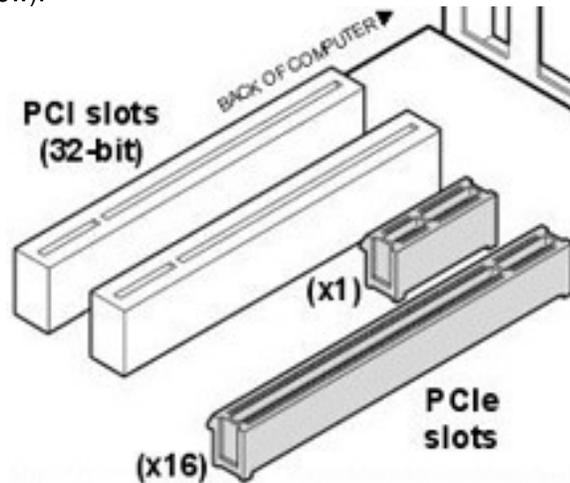
PCI expansion slots come in 3 “flavors”, but the most important thing to know is that they are not interchangeable.

- **Conventional PCI** slots have been available in computers since 1992, but they have been gradually phased out in favor of PCI Express.
- **PCI Express x1** (or **PCIe-x1**) slots are faster than conventional PCI.
- **PCI Express x16** (or **PCIe-x16**) slots are much faster and used primarily for video cards.

Note: Serial (RS232) cards are only available in the **PCI** and **PCIe-x1** configurations.

A. What types of expansion slots do I have?

The best way to know what types of slots are available in a computer is to open up the case and take a look (see diagram below).



PCI Expansion Slot Types

1. If you know what kind of computer you have, just use a search engine to look for “**YourComputerModel expansion slots**” (e.g. “**HP p2120-X expansion slots**”) and there should be links indicating what kind of PCI slots it has.