

Troubleshooting CardioCoach & Exercise Equipment Connections in Windows 10 & 11

General Background

The purpose of this document is to provide a basic troubleshooting guide for pc connections to the CardioCoach (generations 1) and to exercise equipment for both generation 1 and 2 of the CardioCoach. This guide is targeted towards Windows 10 & Windows 11, but would mostly apply to older versions of Windows (8, 7, XP) with only a couple of navigational differences.

The CardioCoach and the exercise equipment it can talk to use serial ports for connecting to a Windows PC. In the past PC's had physical serial ports on them, these days the old 9-pin serial port is no longer included on most PC's, and never included on laptops. To add a serial port to the PC we use a USB-to-Serial adapter. A serial cable then connects from the back of the CardioCoach or Exercise device to the PC's serial port or the USB to Serial Adapter.



Serial Port on a PC



USB to Serial Adapter



Serial Cable

Newer supported exercise devices, and the generation 2 CardioCoachs usually include a direct USB connector for connecting to a PC. Even though you are making a direct USB connection between the device and the PC, functionally it is the same as using the USB to Serial adapter. Its just the the manufacturer has included the conversion circuit inside the device.



USB Port on CardioCoach Gen 2



USB Cable

Connecting Serial Devices

Since physical serial ports are very uncommon anymore we're going to focus on connecting and troubleshooting USB connections.

To connect the USB to Serial adapter first connect the serial cable to your device, then connect the other end to the USB to Serial adapter, the cable can only go in one way. Next plug the rectangular "USB A" end of the USB to Serial adapter into a free port on your PC.

Plugging in a direct USB connection is easier, you need only connect the squarish "USB B" end of the usb cable to the back of the device (CardioCoach or Exercise device), then plug the rectangular "USB A" end of the cable into a free USB port on your PC.

Please note that some newer Laptops & Windows Tablets may drop the USB A port for a USB C port. USB C to USB A adapters are available for these devices, and can be purchased from Amazon, NewEgg, Best Buy or any other PC marketplace.



USB A



USB B



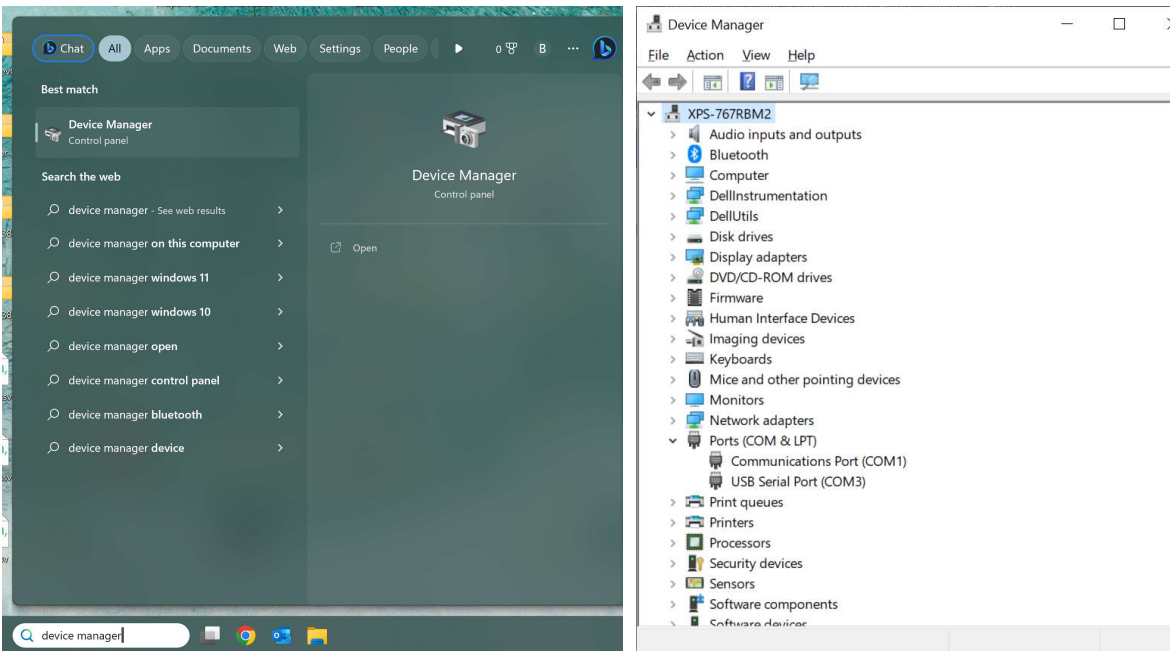
USB C to A adapter

As with all USB devices once you've plugged it in, you MUST install the Windows drivers before it will function. Most of the time Windows will automatically find and install the drivers for you, but if Windows cannot find the drivers, or if you are not connected to the internet then you will need to install the drivers yourself. Please note that lights turning on inside the USB to Serial adapter do NOT mean that it is ready to use, the lights may turn on regardless of whether the drivers have been installed or not.

Finding the COM Number

When you setup the CardioCoach software on a new PC, or try to setup a new piece of exercise equipment for use with the CardioCoach software, you need to configure the software to communicate with the CardioCoach and/or equipment before it will work. Serial devices in Windows are referred to by a COM number, when you configure the CardioCoach software you will need to know which COM number Windows has assigned your CardioCoach/Exercise equipment. The best place to find this information is the Windows Device Manager.

To open the Device Manager, type “Device Manager” into the search box on the Windows 10 or Windows 11 task bar. Then click on the “Device Manager” app. You can also open the Windows Settings app, and use it’s search box to find the Device Manager. On older version of Windows (7 & XP) you need to open the “Control Panel” and you can find Device Manager under the “System” group.



Use the Search Bar to open Device Manager




Device Manager

Once you have the Device Manager open, click on the small arrow on the left of “Ports (COM & LPT)” to drop down a list of all COM Ports installed on the PC. The easiest way to determine which COM# is your CardioCoach or exercise equipment is watch the Ports list in Device Manager as you first unplug the USB connection leading to the CardioCoach, wait a few seconds then reconnect it. You should see one of the COM ports disappear then reappear when you plug it back in. Make a note of the COM# associated with that serial device for configuring the CardioCoach software. If nothing changes under the Ports list when you do this it likely means that the drivers have not been installed, see the Install Drivers section of this document.

Installing Missing Driver

If your device is not listed in the Device Manager's Port list (see Finding the COM Number), then you likely need to install the driver for it. If you are using the current USB to Serial adapter provided by KORR, you can download the driver for it from KORR.com. Drivers for exercise equipment (ergometers, treadmills) must be downloaded from that device's manufacturer's website. KORR does NOT have those drivers, and the driver provided by KORR is only for the current model of USB to Serial adapter sold by KORR Medical Technologies.

Over the years KORR has sold a couple of different models of USB to Serial adapter. The table below will give you some information on the models sold by KORR. If you have any other model of serial adapter, we do not have drivers for it, and you will need to contact the manufacturer of your USB to Serial adapter to get drivers for your device.

KORR Serial Adapters	
	<p>This is the current model of serial adapter. The cable is 12 inches long, and it is a grey/purple color.</p> <p>The drivers for this device may be downloaded from KORR.com at: https://korr.com/service/product-updates/</p>
	<p>The Keyspan/Tripp lite model USA-19HS. Hard plastic case, USB cable is separate from the Serial adapter.</p> <p>The drivers for this device may be downloaded from the manufacturer's website: https://tripplite.eaton.com/keyspan-high-speed-usb-to-serial-adapter~USA19HS</p>
	<p>An alternate version of the serial adapter that KORR sold for a brief time, looks like the current model, except with a longer 6-foot cable. In the Device Manager this one will say something like: "PL203 DOES NOT SUPPORT WINDOWS 10 OR LATER, PLEASE CONTACT YOUR SUPPLIER"</p> <p>Unfortunately, the original manufacturer stopped supporting this model, and it will no longer work under Windows 8, Windows 10, or Windows 11. Contact KORR to purchase a current model.</p>
	<p>For anything else (adapters, ergometers, or treadmills), you will need to contact the manufacturer of that device to get the drivers.</p>

Once you have downloaded the drivers for your device, you run the installation file, then will need to reboot your computer for the COM port to be installed. After the reboot you should see your device listed in the Device Manager's Ports list, see Finding the COM Number of this document.

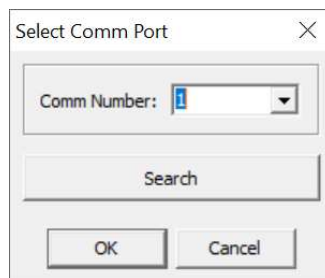
Configuring the CardioCoach Monitor

The CardioCoach Monitor software is used with CardioCoach generation 1 devices.



CardioCoach®, CardioCoachPLUS® and CardioCoachCO2® with serial numbers 10000 – 19000.

To configure the connection to the CardioCoach get the COM number for the USB to Serial device connected to the CardioCoach, see Finding the COM Number section of this document. Once you know the COM number, launch the CardioCoach Monitor software. Then from the main menu choose “Settings” and “COM Port”. In the Select Comm Port dialog select the COM number in the drop down and click OK.



For setting up equipment (ergometers, or treadmills) find the COM number for your device’s connection, see Finding the COM Number section of this document. Then select your device from the “Equipment” option in the main menu. In the Setup dialog box, enter the COM number for the device’s connection into the Comm Number box, and click OK.



Configuring the CardioCoach App

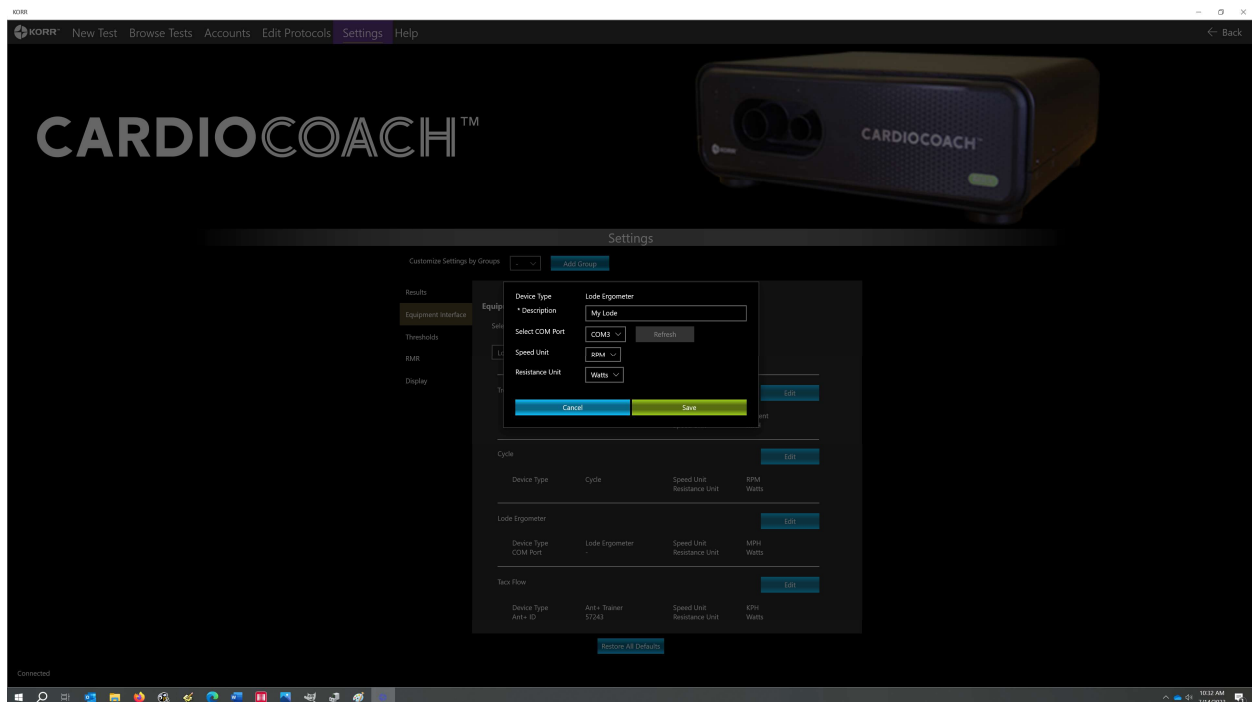
The CardioCoach App is used with CardioCoach generation 2 devices.



CardioCoach®, CardioCoach®PLUS, CardioCoach®MAX and CardioCoach®PRO with serial numbers beginning with CY, CP, CR, or CV.

The CardioCoach App does not need any configuration for connecting to the CardioCoach device, so long as the drivers have been installed, (the software installer for the CardioCoach App installs the drivers for the CardioCoach along with the software).

For setting up equipment (ergometers, or treadmills) find the COM number for your device's connection, see Finding the COM Number section of this document. To setup your exercise equipment, open the CardioCoach App, then navigate to "Settings" and choose "Equipment Interface". There you select your equipment type in the dropdown box, then click the "Add New" button. In the popup box select the COM# option that you've previously found. Then click "Save". Please note that the "Select COM Port" can take a minute to update after you've opened the popup box.



Additional Exercise Device Configuration

Some treadmills and ergometers may require their own configuration before you can use them with the CardioCoach software. For example the Lode Ergometer requires you to:

- Open Menu
- Scroll down to “Settings”
- Then scroll down to “Terminal”
- Choose the “Communication Protocol” and set to “Lode Protocol”
- Choose the “Baudrate” and set to “9600”
- Choose the “Communication Interface” and set to “USB”
- Back out to the “Main Menu” and choose “Terminal”

Other equipment may require similar setup options, please refer to the exercise equipment’s user manual. KORR will only be of limited help in configuring these devices.