# Troubleshooting Guide – USB Sensor not responding

There are a number of issues that can cause the sensor pad to not respond. Below is a list of different scenarios that should help to identify and resolve most issues. If the troubleshooting below does not resolve your issue you should contact P3ProSwing's Technical Support Department for assistance.

Swing Testing Criteria: When you are testing a swing to get a response, it is HIGHLY recommended that you use a chrome-plated (highly shiny), standard size bottom, iron that does not have any club tape on it. These types of clubs do not require any tape and thus eliminate any issue that could be caused due to improperly club taping. Once you are getting a response from your sensor unit, you can begin using taped clubs.

Here are the troubleshooting steps to identify and resolve the issues:

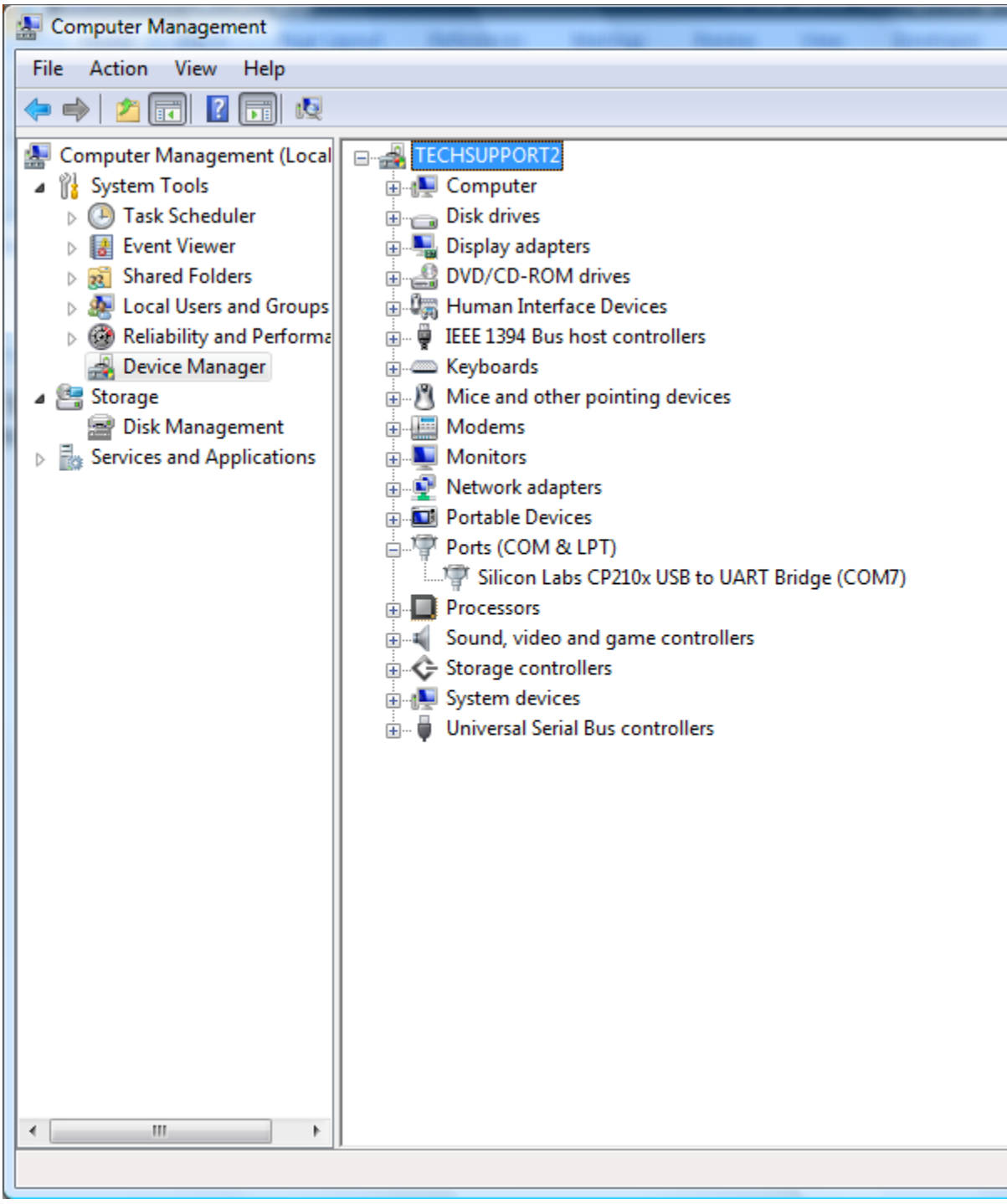
- Test for power to sensor pad
- Connectivity of the USB Port
- Appropriate COM Port (on computer)
- COM Port Software settings
- Using Diagnostics to verify COM Port link
- Reinstalling Driver

1. Checking for connectivity - Checking that the computer recognizes the sensor pad is attached: **NOTE:** the sensor should be recognized regardless of whether it is getting power. This is strictly testing the USB connection of the sensor and computer.
    a. Close any running software on the computer.
    b. Open Device Manager:
        i. Click the Windows start button (windows icon) in the bottom left corner of your screen.
        ii. Right-Click on the 'My Computer' (for Windows XP) or 'Computer' (for Vista and Win7)
        iii. Select 'Manage' from the menu

iv. Click on the ‘Device Manager’ link in the Computer Management window that opens.

c. Find the listing for ‘Ports (COM & LPT)’ and click the ‘+’ in front of the list.

d. Your screen should look similar to the following:



e. The listing for the sensor unit will be the Silicon Labs CP210x USB to UART Bridge (COMx). Where 'x' represents the actual communications port number which is being used. If the sensor is recognized properly (none of the issues below), then continue to Step 2.

    i. Possible issues here:

        1. If you see a yellow exclamation mark  to the left of the listing, the driver is not being properly recognized (see Driver installation instructions).

        2. There is no 'Ports (COM & LPT)' listed. If this is the case, you should check for a listing of 'Other Devices' and if that is listed, click the '+' near it. You may find a listing there for a Silicon Labs (or CP2102) device there. If so, the drivers are not being recognized (see Driver installation instructions)

        3. No listing for Ports '(COM & LPT)' or 'Other Devices'. If this is the case, there are a few test options here:

            a. Check that the USB Cable is properly plugged into both the sensor pad and computer. I would recommend disconnecting them and reconnecting them. **NOTE:** You can leave the Device Manager window open and it will refresh when it recognizes a new device has been plugged in.

            b. Try using a different USB Cable. A faulty USB Cable will cause the sensor to not be recognized by the sensor pad.

            c. Try a different USB Port on the computer. Generally, the best test it to try a different USB location, so if you had it plugged into the back of the computer, try the front or vice versa.

            d. Test the USB Port by plugging another device into the port and see if it is recognized in Device Manager.

        ***If there is no listing for Ports or other devices and the options above do not resolve your problem. STOP HERE! You will need to contact P3ProSwing's Technical Support Department. The issue is likely the sensor at this point.***

2. Appropriate COM Port – The P3ProSwing sensor pad will not be recognized by the software if the Communications Port number is greater than 8.

    Basic COM Port information:

    1. Communications Port # 1 is almost always assigned as the Serial Port (whether one is physically installed in the computer or not). A Serial Port is a 9-pin connection  .
    2. Communications Port # 2 is generally assigned to the Modem input on the computer (again, whether installed or not).
    3. Many newer computers, Bluetooth devices and software will dynamically assign communications ports whether they are using them or not.

    a. If the COM Port is 8 or under, just make note of the number and continue at Step 3.

    b. If the COM Port is above 8, you will need to force this setting to an appropriate COM Port.

        i. Right-click on the CP210x listing.

        ii. Select Properties from the menu that opens.

        iii. Click the 'Port Settings' tab on the top of the Properties screen.

        iv. Click the 'Advanced' button.

        v. In the bottom left corner you should see a listing for 'COM Port Number:' with a dropdown box. Click the arrow on the box to populate the list.

            1. Here you are looking for an available COM Port number between 3 and 8. If one is available, select it.

                a. Click the 'OK' button each time until you are back to the Device Manager portion of the screen.

                b. Select 'Action' from the menu bar at the top of the Computer Management Window.

                c. Select 'Scan for Hardware Changes'.

                d. This should update Device Manager to reflect the new COM Port number.

2. If a COM Port is not available under 8:

   It is highly unlikely that you are actually using 8 'non-modem' communication devices. (See notes above)

   a. You will need to force one the sensor unit on to a COM Port as noted in the above steps. This can be changed later if a device stops working on your computer. Communications devices are not vital to the Operating System and no permanent damage will be caused.

***If you cannot get your sensor unit to a COM Port under 8 in Device Manager - STOP HERE! You will need to contact P3ProSwing's Technical Support Department.***

3. COM Port Software settings – By now you know which COM Port is being used by the computer for your sensor pad. Now let's assure you have it set properly within the P3ProSwing Software.

   a. Close any running programs.

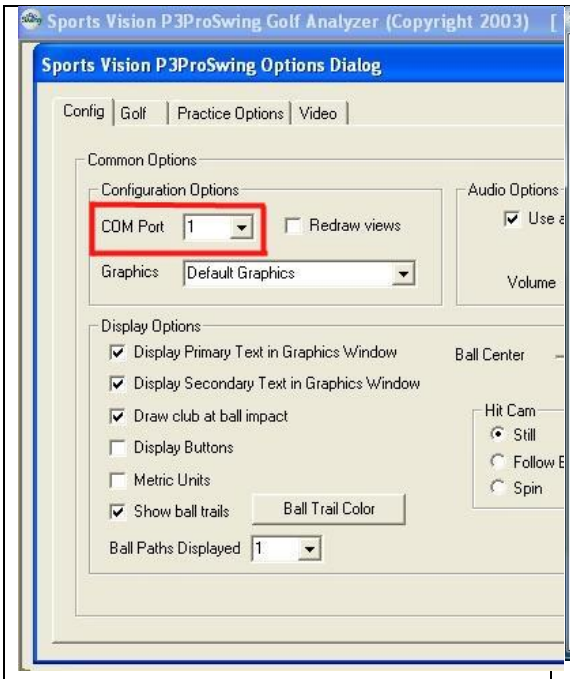
   b. Open one instance of the P3ProSwing Swing Analysis software via the 'P3ProSwing Golf' icon on your desktop.

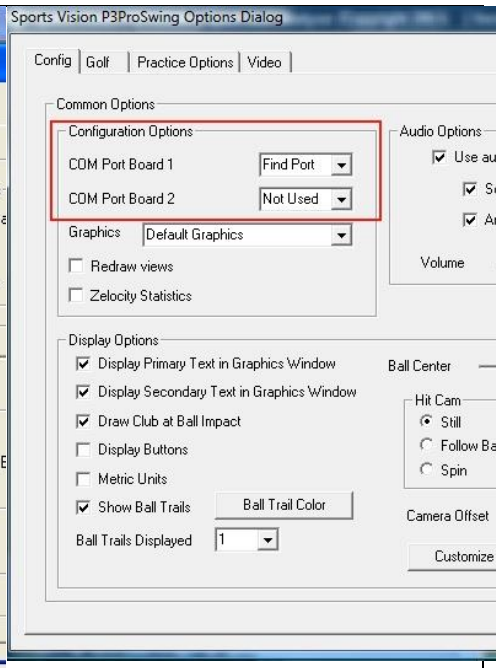
   c. Click the Options button in the upper left corner of the software.

   d. By default, you should be on the 'config' tab. If not, click on the config tab.

   e. Depending on your software version, you should see one of the following screens:

| **Prior to Version 4.0** | **Version 4.0 or above** |
|---|---|




1. With this version, you will need to change this setting to be the exact COM Port number you found (or set) in Device Manager.
2. Click OK to save your changes.
3. Close the software (see NOTE # 1 below).
4. Wait 5 seconds.
5. Reopen the software.
6. Test a swing (using the previously noted Swing Test Criteria).

If you do not get a response from the sensor unit, continue to Step 4.

1. With version 4.0 (or above), you can attempt to let your computer find the COM Port automatically by using the 'Find Port' option.
2. If your sensor is not responding using 'Find Port', try manually setting it to the appropriate COM Port number found in Device Manager.
3. Click OK to save your changes.
4. Close the software (see NOTE # 1 below).
5. Wait 5 seconds.
6. Reopen the software.
7. Test a swing (using the previously noted Swing Test Criteria).

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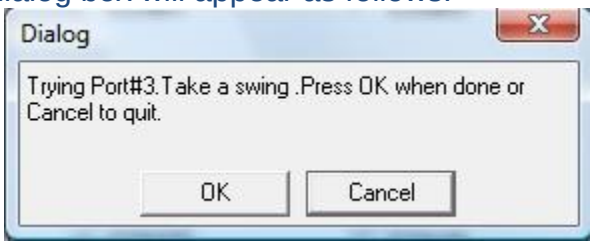
|---|---|
| | If you do not get a response from the sensor unit, continue to Step 4. |

**NOTE # 1:** Any time you change the COM Port settings within the software (after clicking 'OK' to execute your changes) you should close the software and reopen it. The communications link is made during the startup of the program and this assures the link is actually found an made.

**NOTE # 2:** You will note that Version 4.0 and above have the capability to connect 2 sensors directly to the computer (COM Port Board 1 & COM Port Board 2). Prior to version 4.0, you would have needed to use a switch box to accomplish this same affect. In version 4.0 or above, you ***MUST*** have COM Port Board 2 set to 'Not Used' if you are only using a single sensor pad or you may not get a response from the sensor on any/all swings.

4. Using Diagnostics to verify COM Port link – If you are still unable to get a response, we should attempt to use the P3ProSwing Diagnostics Utility to test for connectivity to the Port. This will eliminate any problems caused by the P3ProSwing software installation.

    a. Close all open programs.
    b. Click on the Windows Start Button (bottom left of screen)
    c. Click on Programs
    d. Select P3ProSwing Folder
    e. Select P3ProSwing Diagnostics (this will open the program)
    f. From the menu, select Setup and then Comport. A new dialog box will appear.
    g. Click on the 'Find P-3 Pro' button.
    h. A dialog box will appear as follows:




Note: Port # will vary based on what your system is using for communications ports.

    i. At this point, we should actually know the COM Port that is being used based on Device Manager (although it will not hurt to test each port that is being displayed.
    j. While this prompt is displayed, take a swing.

i. If the sensor is recognized on the Port currently being tested, you will get the following prompt immediately following your swing:


ii. If the sensor is not found during your swing, press the 'OK' button and the prompt will cycle to use the next communications port your computer has listed as used.

iii. Repeat the above 2 steps until your sensor is recognized or the Port numbers begin to repeat themselves.

***If you cannot get your sensor unit to be recognized in this manner - STOP HERE! You will need to contact P3ProSwing's Technical Support Department.***

k. If your sensor is recognized properly in this manner:

i. Verify the COM Port Software settings.

ii. If the sensor still does not respond with the P3ProSwing Software, you should attempt to do a full uninstall & reinstall of the software as it is likely something is corrupt in your software installation.

5. Reinstalling the Sensor Pad's Driver - If you are here, it is likely because there was an issue in Device Manager (see Step 1 if you did not already).

There are 2 ways to install the Device Driver. It is highly recommended that you download the latest driver as outlined in Step a below. But if you do not have internet access, you may need to attempt step b.

a. Download the Silicon Labs Driver from: https://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx

i. Once you click the link above - Click on the link that says 'AN335SW'.

ii. This will download a .zip file to your computer. This is a compressed file. (Click 'Save' on the popup window)

iii. Once the download completes, click on the 'Open' button.

iv. You will be prompted to 'Allow' this action.

v. This will unzip the file to your hard drive.

vi. Double click the file to begin the installation process.

vii. You will be prompted at the last menu with a checkbox to 'Launch Driver Installation'. Be sure this checkbox is checked

before clicking on the 'Finish' button. Follow the onscreen instructions to finish the installation.

viii. If you get a prompt that it wishes to remove 2 files, do not be alarmed. Go ahead and let it do this. This is normal. It is removing the old driver files (installed when you installed P3ProSwing).

ix. Remove your USB Cable (attached to the sensor pad) from the computer.

x. Reconnect the USB Cable to the computer (assure it is still connected to the sensor pad).

xi. Return to Step 1 and check the status of the device. If it is still not recognized properly, you may need to restart your computer (for the driver installation to be recognized) and try Step 1again.

b. Manually installing the Silicon Labs Drivers from your hard drive – During the installation process, 2 drivers are installed for the sensor unit. The installation program for each driver is stored locally on your hard drive. Here are the steps to reinstall those drivers:

i. Close any open software.

ii. Disconnect the USB cable for your sensor pad from your computer.

iii. Click the Windows Start button on the bottom left corner of your screen.

iv. Select ‘My Computer’ (for Windows XP) or ‘Computer’ (for Vista or Win7).

v. Navigate to your local hard drive where you initially installed the software. (Generally noted as C: )

vi. Open the ‘Program Files’ folder (or ‘Program Files (x86)’ on 64-bit computers)

vii. Open the SportsVision Folder.

viii. Open the P3Pro Folder

ix. From here, there are 2 subfolders which contain drivers that need to be reinstalled:

1. Open the USB_to_Serial folder.
    a. This contains the USB-to-Serial Driver [this is required even for direct USB-to-USB connections]).
    b. Double-click the InstallDrivers.bat file to run the installation program for this driver.
    c. Upon completion, navigate back up to the P3Pro folder.
2. Open the USB_to_UART_Driver folder.
    a. Run the program called PreInstaller.exe.

x. Return to Step 1 and check the status of the device. If it is still not recognized properly, you may need to restart your computer (for the driver installation to be recognized) and try Step 1again.

c. If this does not resolve your issue, you may attempt to uninstall the existing drivers and re-attempt driver installation. There are 2 methods to uninstall these drivers. I recommend you attempt both to assure the drivers are thoroughly removed.
    i. Close all open programs.
    ii. Click the Windows Start button on the bottom left corner of your screen.
    iii. Click the 'Control Panel' option.
        1. For Windows XP – select 'Add/Remove Programs'
        2. For Vista/Win7 – Select 'Programs and Features' (Classic View) or 'Uninstall a Program [under Programs]' (Control Panel Home)
    iv. Uninstall any listing for 'CP210….' or 'Silicon Labs' (NOTE: check all descriptions because it may be listed as 'Windows Driver Package.. Silicon..' as well.
    v. Close Control Panel
    vi. Select 'My Computer' (for Windows XP) or 'Computer' (for Vista or Win7).
    vii. Navigate to your local hard drive where you initially installed the software. (Generally noted as C: )
    viii. Open the 'Program Files' folder (or 'Program Files (x86)' on 64-bit computers)
    ix. Right-click the folder named 'SiLabs' (if it exists) and select 'Delete'.
    x. Close any open windows.
    xi. If the sensor pad's USB Cable is not currently connected, plug it in now.
    xii. Open Device Manager (see Step 1 for instructions on doing so, if needed).
    xiii. If there is a listing for the CP210x under Ports or a listing for the device under 'Other Devices', then the computer still recognizes a driver for it. We need to assure it is removed by doing the following:
        1. Right-click on the listing.
        2. Click 'Uninstall' and you should see one of the following pop-ups

| Windows XP | Windows Vista or Windows 7 |
| --- | --- |


**NOTE:** In Windows Vista and/or Windows 7, be sure to click on the checkbox to 'Delete the driver software…'

3. Click the OK button.

xiv. Unplug the sensor pad's USB Cable from the computer.
xv. Wait 5 seconds.
xvi. Plug the cable back in.
xvii. When you reinstall the cable, you should be prompted with a screen similar to below:



xviii. If you are not getting a prompt similar to this, it is highly unlikely that the drivers are removed. Repeat steps xi. to xvii. again.

xix. Once you have one of those images, remove the USB Cable from the computer.

xx. Reinstall the drivers as outlined above.

***If you cannot get the drivers to be recognized in this manner - STOP HERE! You will need to contact P3ProSwing's Technical Support Department.***