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# WSPRlite fault finding – configuration / PC connection problems

WSPRlites are configured through a USB port, either from a computer or Android phone.

This document covers fault finding for connecting to and configuring the WSPRlite. There is a separate document covering problems with transmitting and with being heard by WSPR receivers.

## Problems that may occur on first use

The main areas where problems arise for first time users are:

#### 1. The USB lead

Symptoms of a problem with the USB lead are that the WSPRlite LED flashes but the PC does not assign a port or recognise it as a USB device. This is by far the most common cause of problems.

The USB lead required is a common one that many people will have already - perhaps supplied with a mobile phone. Unfortunately many such leads are only suitable for charging the phone and do not support data. Suppliers do this to save money (2-core cable instead of 4-core, 4 connections instead of 8). It is not possible to tell visually which leads support data. While it is possible to check them with a multimeter, it's a bit fiddly.

Often the easiest way to test the lead is using your mobile phone. Connect it to your computer using the lead and see if it is recognised as a USB device. Importantly, also check that you can actually "see" the phone on the computer (often as a USB drive). If your lead passes these simple tests it's "WSPRlite ready".

If all else fails, over at SOTABEAMS we do stock an inexpensive lead that is guaranteed to support data.

#### 2. Drivers

Problems can also arise from failure to download, unzip and install the drivers. Some computers may do this automatically. If not, install them manually as detailed here: <u>https://dxplorer.net/wsprlite/WSPRlite-drivers.pdf</u>

#### 3. Antivirus

Rarely, antivirus software causes problems. You may need to set an exception for the config program. The instructions with your antivirus software should tell you how to do this.

## Problems during subsequent use

If your WSPRlite used to connect via USB but does not now connect with the computer:

- 1. Make sure that the USB lead that you are using is the one that you used before (i.e. one that supports data).
- 2. Try another USB data lead they do sometimes go faulty, or start wearing out! Remember that not all USB leads support data many are charge-only leads.
- 3. Try connecting to your WSPRlite using another computer. Both Windows and antivirus software can automatically update and cause unexpected problems.

- 4. Try connecting the WSPRlite to another USB port on your computer.
- 5. If you are using a new computer, does the WSPRlite still work on the old computer? This will determine whether the problem is likely to be with the WSPRlite or with the new computer. If it still works on the old computer, try the 'on first use' fault finding suggestions above on the new computer.
- 6. Finally, as described on the <u>instruction page</u>, WSPRlites can be damaged if you transmit on another HF antenna when your WSPRlite is connected to an antenna (whether it was on or not makes no difference). To understand more about unwanted antenna coupling, <u>click here</u> to read an article that covers the subject.

## **Further diagnostics**

Other things to check if none of the previous suggestions help you are:

- Do any ports appear in the dropdown in the WSPRlite config program?
- If the WSPRlite is connected to the computer through a USB hub, try connecting it directly to the computer. WSPRlites normally work fine with USB hubs, but some hubs can have occasional problems with some devices (we have mainly seen this issue with Wolfwaves, but a direct connection may be worth trying with WSPRlites too).
- Open the Windows <u>Device Manager</u> and check whether the WSPRlite is showing up, probably under "Ports (COM & LPT)" as in the screenshot below. The item that should appear in Device Manager is "Silicon Labs CP210x USB to UART Bridge". The port ("COM" followed by a number) listed for that device should match the one selected in the config program.

Normally, the config program should automatically select the correct port if it is able to see the WSPRlite.

	Silicon Labs CP210x USB to UART Bridge (COM4) Properties $\qquad \qquad \qquad$
🗱 WSPRlite settings - v1.2.4 — 🗆 🗙	General Port Settings Driver Details Events Power Management
Select serial port to use: COM4 (WSPRlite Flexi)  Connect Firmware version: v1.1.6-20190103 Status: WSPR mode, waiting to start	Silicon Labs CP210x USB to UART Bridge (COM4) Driver Provider: Silicon Laboratories Inc. Driver Date: 08/01/2021 Driver Version: 10.1.10.103
Update firmware Save WSPR settings	Digital Signer: Microsoft Windows Hardware Compatibility Publisher
<ul> <li>▲ Device Manager</li> <li>File Action View Help</li> <li></li></ul>	— □ X he installed driver files. If this device.
<ul> <li>Mice and other pointing devices</li> <li>Monitors</li> <li>Retwork adapters</li> <li>Ports (COM &amp; LPT)</li> </ul>	fer updating the driver, roll fight and the driver.
<ul> <li></li></ul>	from the system (Advanced).

Windows will usually refresh the list of devices in Device Manager (visible by the list briefly collapsing then re-expanding) whenever a USB device is plugged in or unplugged. If it does

this when the WSPRlite is plugged in or unplugged, than that is a good sign that the cable is working even if something else (such as the drivers or the WSPRlite itself) is not.

- If you are having problems connecting to a WSPRlite on your computer, you could try the Android app instead (provided that you have or can borrow an Android phone or tablet, and a suitable cable to connect it to the WSPRlite).
- If all these suggestions fail, your WSPRlite may have broken. We can sometimes fix WSPRlites if you send them back to us (a small repair fee plus postage will apply if your WSPRlite is outside the warranty period).