IC-7300 and WSJT-X   G1MHU

If you are completely new to this, please install the drivers before connecting the rig to the PC.   See the Troubleshooting section on the last page.
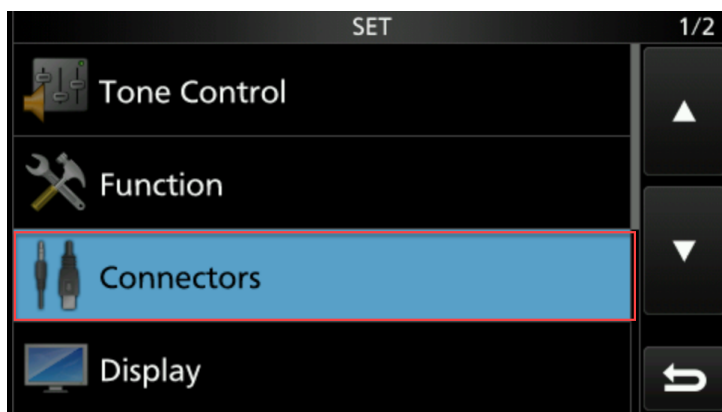
Audio Settings

WSJT-X expects your sound card to do its raw sampling at 48000 Hz. To ensure that this will be so when running under recent versions of Windows, open the system's **Sound** control panel and select in turn the **Recording** and **Playback** tabs. Click on **Properties**, then **Advanced**, and select **16 bit, 48000 Hz (DVD Quality)**.

If you select the audio output device that is also your computer's default audio device, be sure to turn off all system sounds to prevent inadvertently transmitting them over the air.
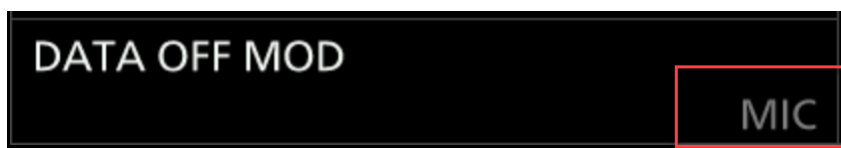
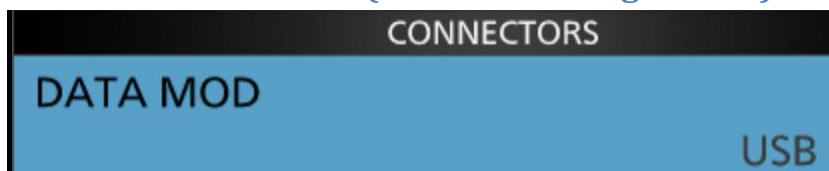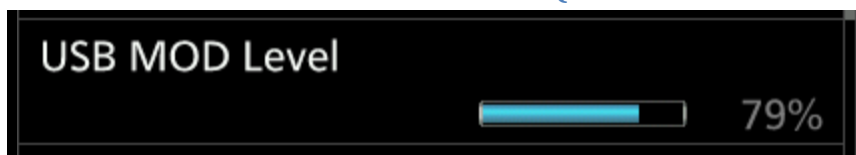## Rig Settings Menu – Set

Connectors

Data OFF Mod – MIC

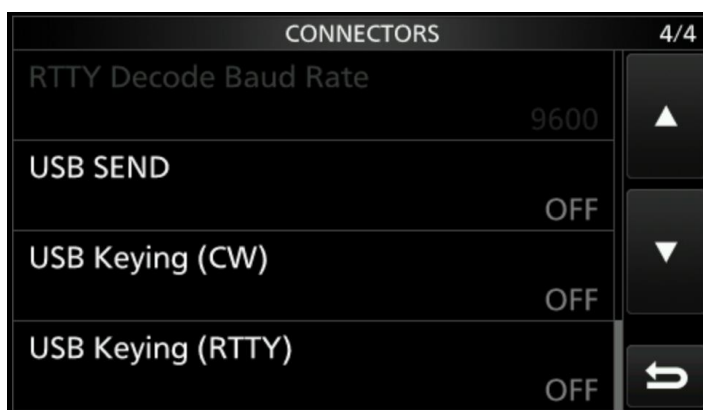## Data Mod – set to USB (not ACC – the rig default)

Set Data Mod level to around 79% (when in TX set so ALC is around 50%)

TX and set levels so that ALC is around 50% Use the Audio output level and the USB MOD Level control – fine tune this later.

USB SEND – if using CAT to key the rig on USB cable connection then these need to be set to OFF

*USB Echo back must be On for WSJT-X   other CAT software does not need it.

Filter – Widen FL1 to be 3.6K

Put the rig into USB Data Mode (Select USB mode then press the Data button) Ensure the mode now shows USB-D

Tap the FIL button on screen until FIL1 is displayed

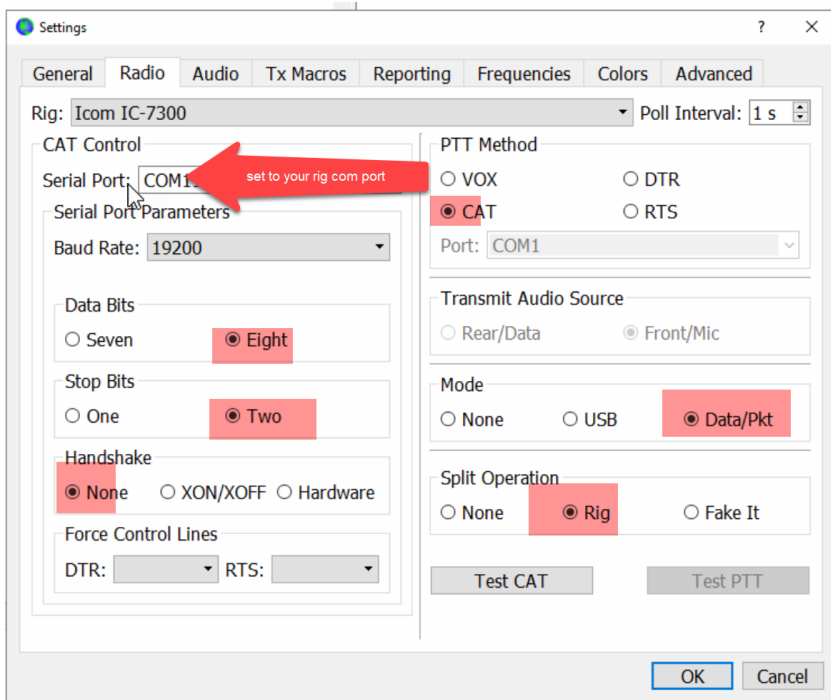## Press and hold the FL1 Filter on the screen

Press the BW button on screen then turn the VFO knob until the value changes from 1.2K to 3.K then press the FL1 button again to close the filter setting page.
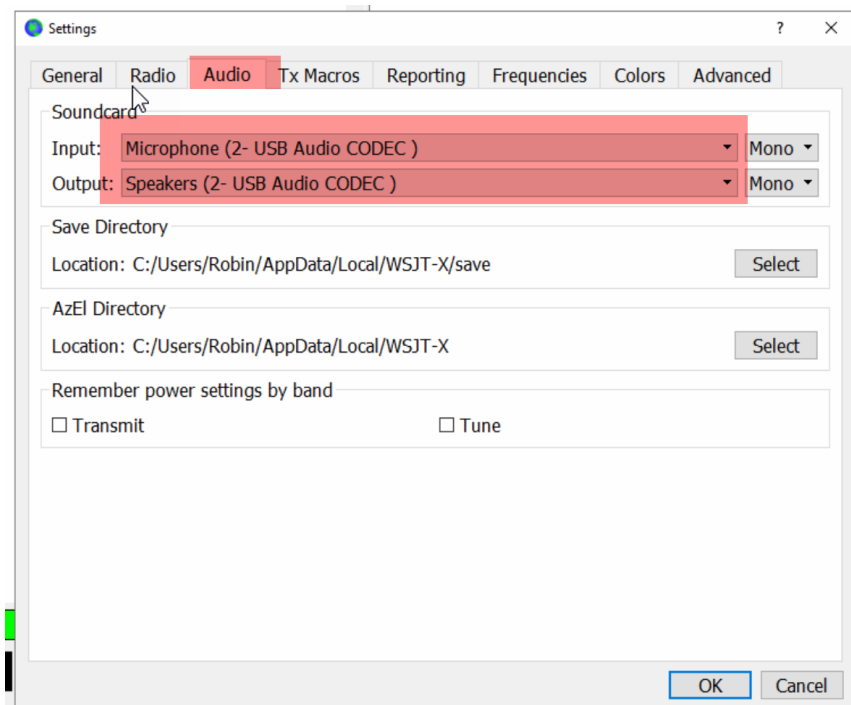

WSJT-X Settings

Radio Tab - Select the com port that matches what is shown in windows device manager for hhe Silicon Labs device
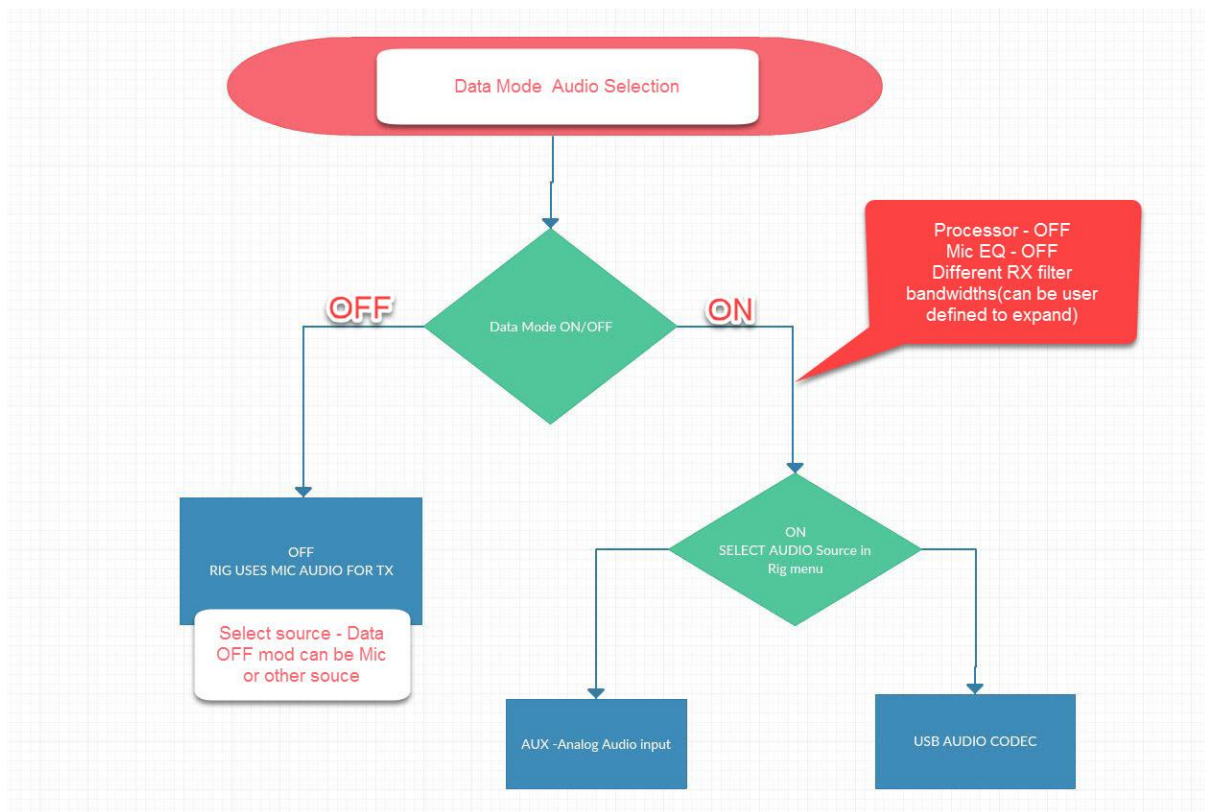

Audio Tab - Select the USB audio Codec

USB Audio switching explaination

Data Mode needs to be ON and the rig needs to be configured to use USB audio, hopefully this diagram will help explain the TX audio paths.

Troubleshooting

Old driver removal

Remove Drivers with USBDeview http://www.nirsoft.net/utils/usb_devices_view.html

Ensure you use the correct version for your computer's operating system, 32 bit or 64 bit Unpack the zip file, Right click on the application and run the program as Admnistrator. Uninstall any old USB devices (Silicon Labs, IC-7300 etc) , right click and select Uninstall selected devices.
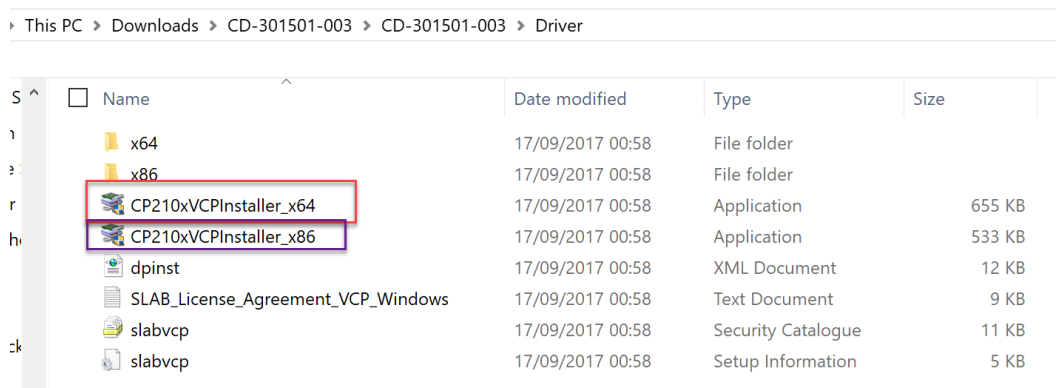
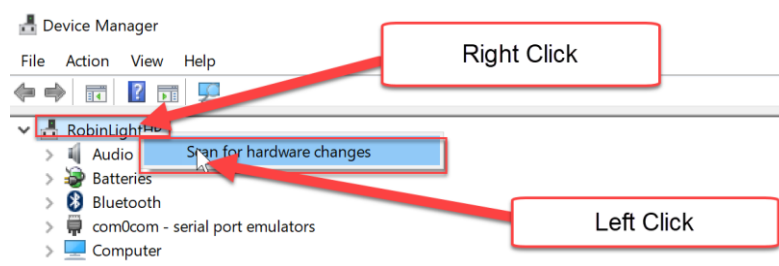## Download and unzip the latest USB driver from the Icom Japan website
https://www.icom.co.jp/world/support/download/firm/

IC-7100/ IC-7200/ IC-7300/ IC-7410/ IC-7600/ IC-7850/ IC-7851/ IC-9100	USB Driver(Version 1.20), Driver Utility and manuals.	2013/08/01

Ensure you unpack the zip file – it will not work otherwise.. and that you install the correct version.

x64 for 64 bit Operating system, x86 for 32 bit

This PC > Downloads > CD-301501-003 > CD-301501-003 > Driver			
Name	Date modified	Type	Size
x64	17/09/2017 00:58	File folder	
x86	17/09/2017 00:58	File folder	
CP210xVCPInstaller_x64	17/09/2017 00:58	Application	655 KB
CP210xVCPInstaller_x86	17/09/2017 00:58	Application	533 KB
dpinst	17/09/2017 00:58	XML Document	12 KB
SLAB_License_Agreement_VCP_Windows	17/09/2017 00:58	Text Document	9 KB
slabvcp	17/09/2017 00:58	Security Catalogue	11 KB
slabvcp	17/09/2017 00:58	Setup Information	5 KB

Rescan for hardware changes from device manager to re-detect the rig or disconnect and re-connect the USB lead to the PC/Rig

Losing audio device when your PC goes to sleep?

Disable suspend on your USB root hubs in device manager – google search will show you how to do this ..

USB Cable / EMC

Some people report that they suffer from USB disconnect issues, loss of CAT control or Loss of PTT or rig gets stuck in TX mode. This is normally down to RF in the shack. Often the cause is RF on the coax, especially when using longwire or vertical antennas.   Firstly ensure that you try and reduce the cause of the problem by using balanced antennas with a balun rather than end fed ones. If you must use end fed antennas then ensure that you fit a RF choke to reduce the amount of RF coming into the shack. Ensure you have a good RF earth. Ensure the Rig is bonded to the PSU and PC if possible.

If you are still having connectivity issues, try connecting to a USB 2 port instead of a USB 3 one if your PC has them (USB 3 are labelled SS (Superspeed) and tend to be blue or a different colour).

You may need an external powered USB Hub on older PC's.   Try front panel USB ports rather than the rear ones on older PC's.

This bit is very important - Use a good Quality USB cable such as the Tripp Lite one.   U023-006 heavy shielded with Ferrite Chokes (Amazon, ebay etc). Many of the USB cables intended for printers etc do not have enough shielding, so are prone to EMC issues.

MODEL NUMBER: **U023-006**

USB 2.0 Hi-Speed A/B Cable with Ferrite Chokes (M/M), 6-ft.

☐☐☐☐☐
Be the first to review this product

- Meets or Exceeds USB 2.0 Specifications
- Supports faster data transfer rate (1.5 to 480 Mbps) for low speed and high speed devices, including multimedia applications
- Premium double-shielded cables with tinned copper braid and aluminum mylar foil and Ferrite chokes, feature twisted 28AWG data lines, and 24AWG power lines.
- Gold plated connectors provide superior conductivity

Timing –Clock

The PC clock needs to be accurate. Install NTP Clock synchronising software.

Meinberg NTP or Dimension 4 seem to be the most popular.

https://www.meinbergglobal.com/english/sw/ntp.htm

http://www.thinkman.com/dimension4/