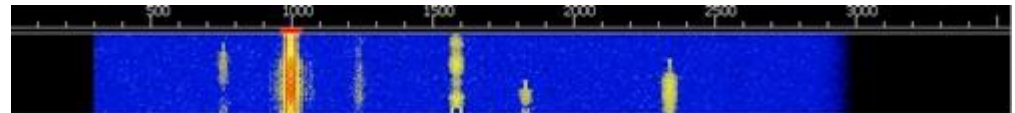
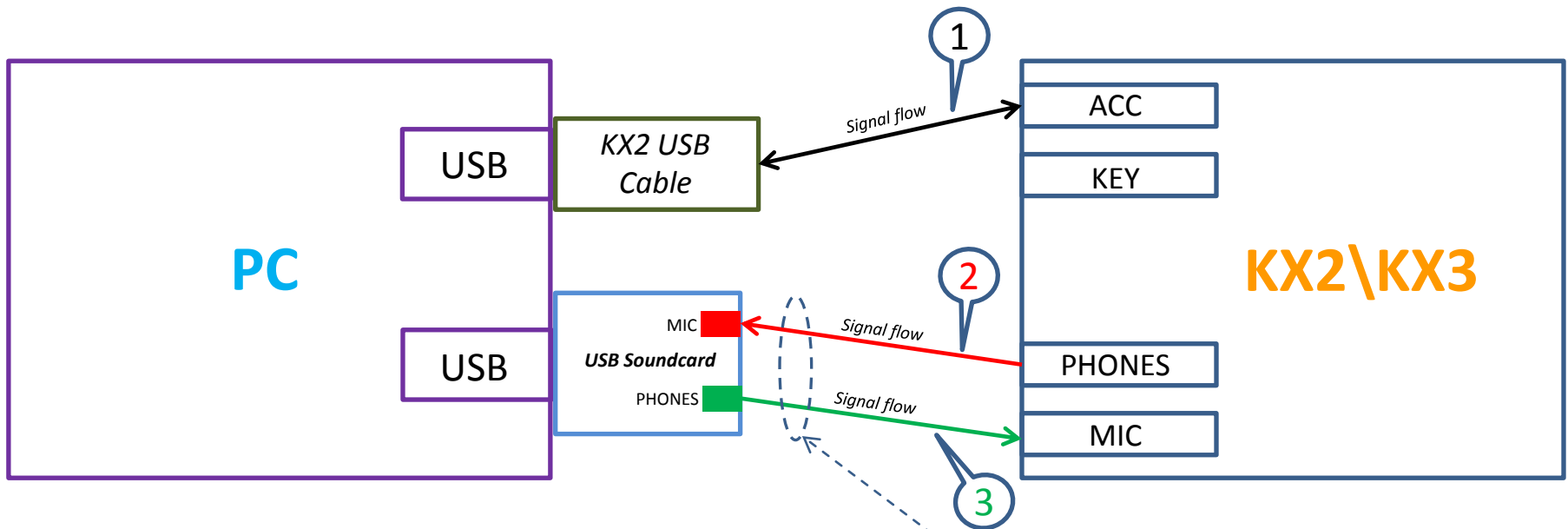


KX2\KX3 Digital Setup Guide

- Cable and software configuration examples for using a KX2 with both WSJT-X and Fldigi when used with either a USB Soundcard or a Signalink USB.
- ***This little guide doesn't contain every detail required, it simply illustrates some of what I did with my KX2, PC, and software to begin to use digital modes. There are numerous variations possible and your situation may well differ from mine so use this appropriately and at your own risk.***
- Consult the Elecraft manual for radio setting details and the manuals\help for the software applications for additional information.



Elecraft KX2\KX3 and *USB Soundcard* Cable Configuration



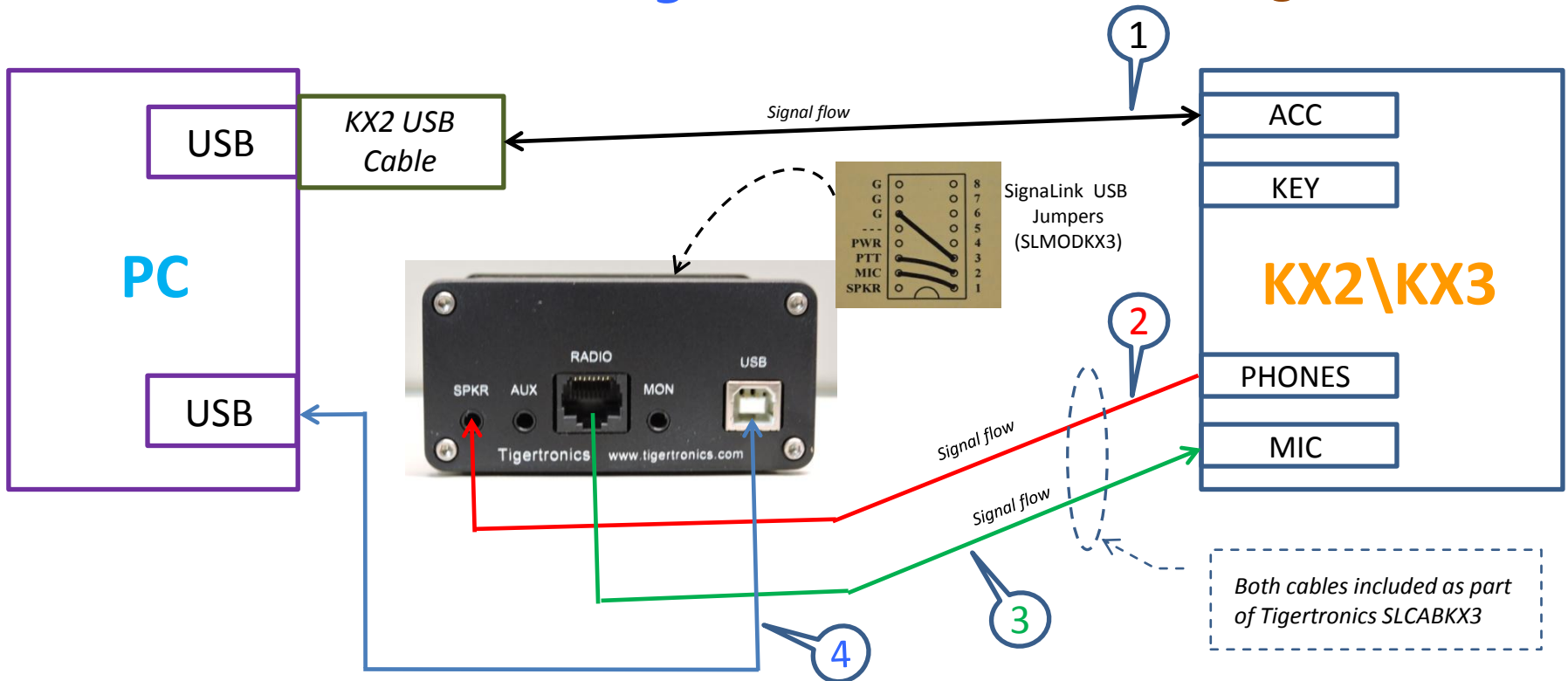
Cable descriptions

- 1) The **KX2 USB cable** provides radio control via CAT (in this case frequency and keying.) Signal flow is bidirectional.
- 2) **Red audio cable** (3.5mm stereo audio cable) Signal flow is from the radio (Phones output) to the MIC input on the USB Soundcard. This is the signal received by the KX2 and sent to the WSJT-X software for decoding.
- 3) **Green audio cable** (3.5mm stereo cable) Signal flow is from the USB Soundcard (Phones) to the KX2 MIC (Input.) This is the signal that is sent from the WSJT-X software to the KX2 for transmission.

Note: If you are using the Elecraft cables, Transmit Audio Cable (E980229) and Receive Audio Cable (E980230) the colored tabs on the cables match the corresponding port on the soundcard

I used a Sabrent AU-MMSA 2.1 Audio Sound Card Adapter that I obtained from Amazon.

Elecraft KX2\KX3 and *SignalLink USB* Cable Configuration



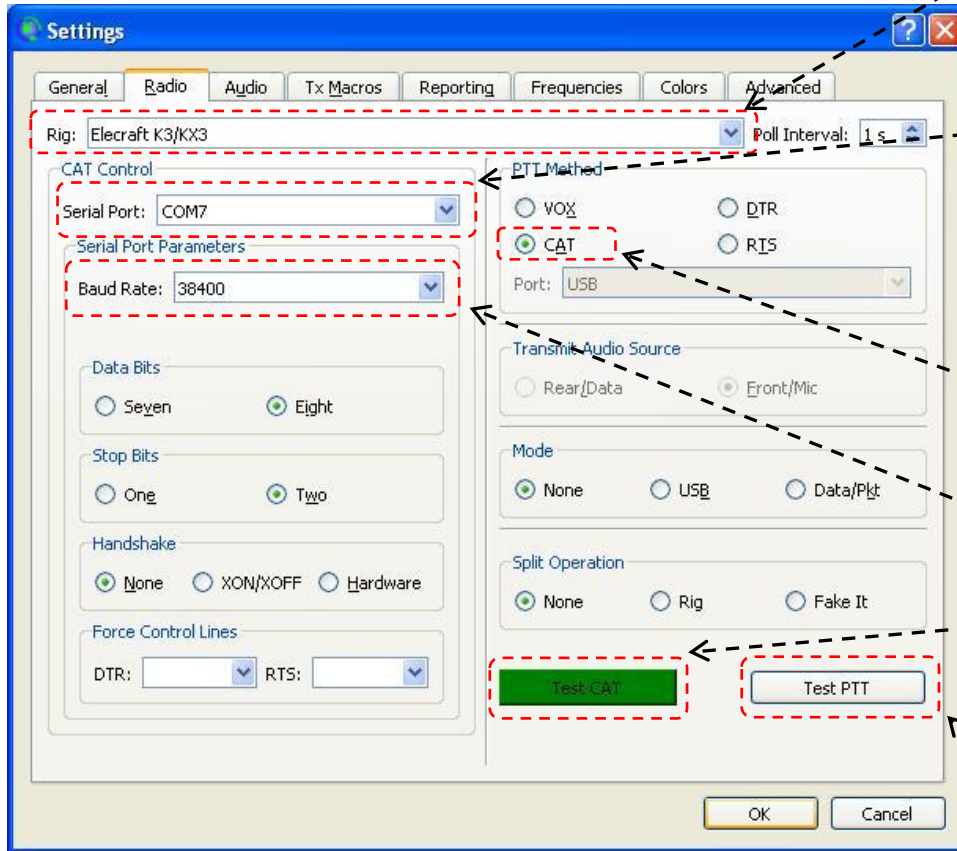
Cable descriptions

- 1) The **KX2 USB cable** provides radio control via CAT (in this case frequency and keying.) Signal flow is bidirectional.
- 2) **Red audio cable** (3.5mm stereo audio cable) Signal flow is from the radio (Phones output) to the SPKR input on SignalLink USB. This is the signal received by the KX2 and sent to the WSJT-X software for decoding.
- 3) **Green audio cable** (RJ45 to 3.5mm stereo cable) Signal flow is from the SignalLink USB (Radio) to the KX2 MIC (Input.) This is the signal that is sent from the WSJT-X software to the KX2 for transmission.
- 4) **USB Type B to Type A cable.** Connects the SignalLink USB to your PC for all signal flow between the PC and the SignalLink USB.



Red arrows indicate approximate settings. TX and RX settings may vary for your system.

WSJT-X Radio Configuration



Select "Elecraft K3/KX3" from the drop-down list.
This setting works for both rigs (KX2 and KX3.)

- Select the serial port to which the KX2/KX3 USB cable is connected.
- This will vary by PC. Mine was on COM7.
- Use the KX2/KX3 Utility application to determine the correct setting.
- Be sure to shut the KX2/KX3 Utility application down so as to free the COM port for use by WSJT-X.

Select CAT (Controls the radio, not your Cat (feline) as there is no such thing as "Cat" control. 😊)

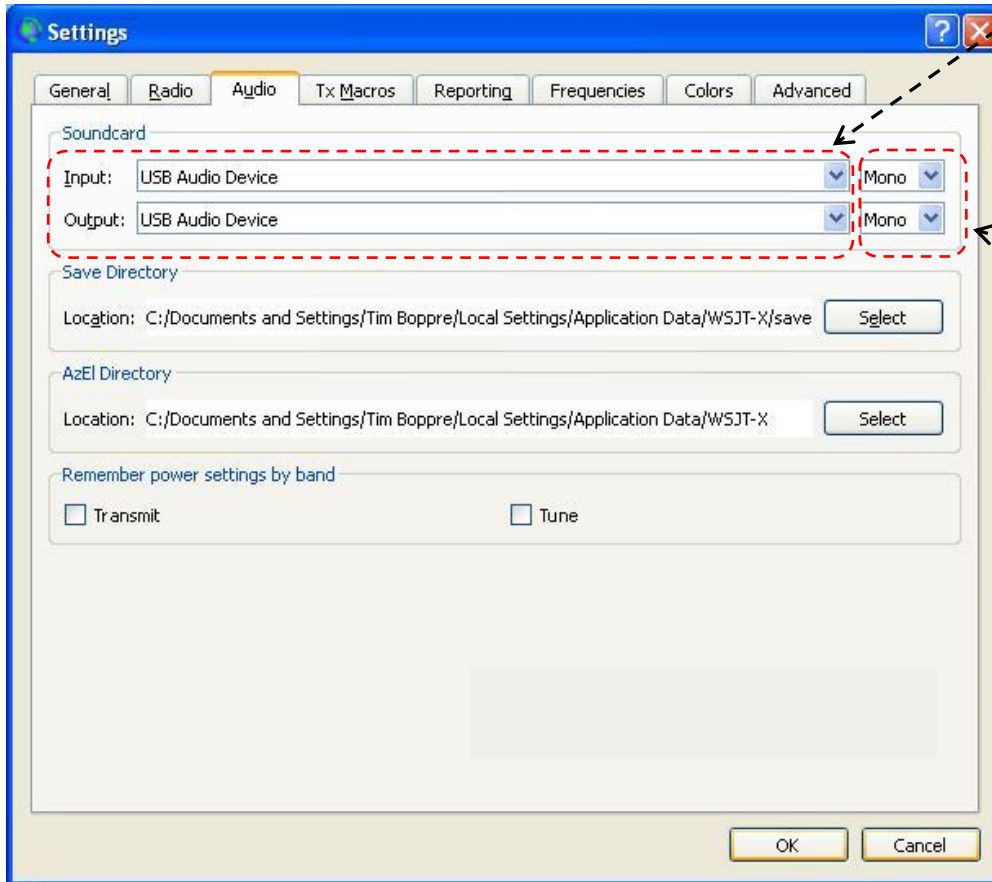
Match the setting of the radio (RS232 in the menu.)

Click "Test CAT" to test the interface to the radio. Green indicates that the configuration is correct.

Click "Test PTT" to test keying the radio. This will set the radio to transmit so be prepared. Click to enable (button turns red and again to disable. Check that the red TX LED on the radio lights. Nothing is transmitted as there is no audio out so there won't be any power\ALC indication on the radio.

WSJT-X

Audio Configuration

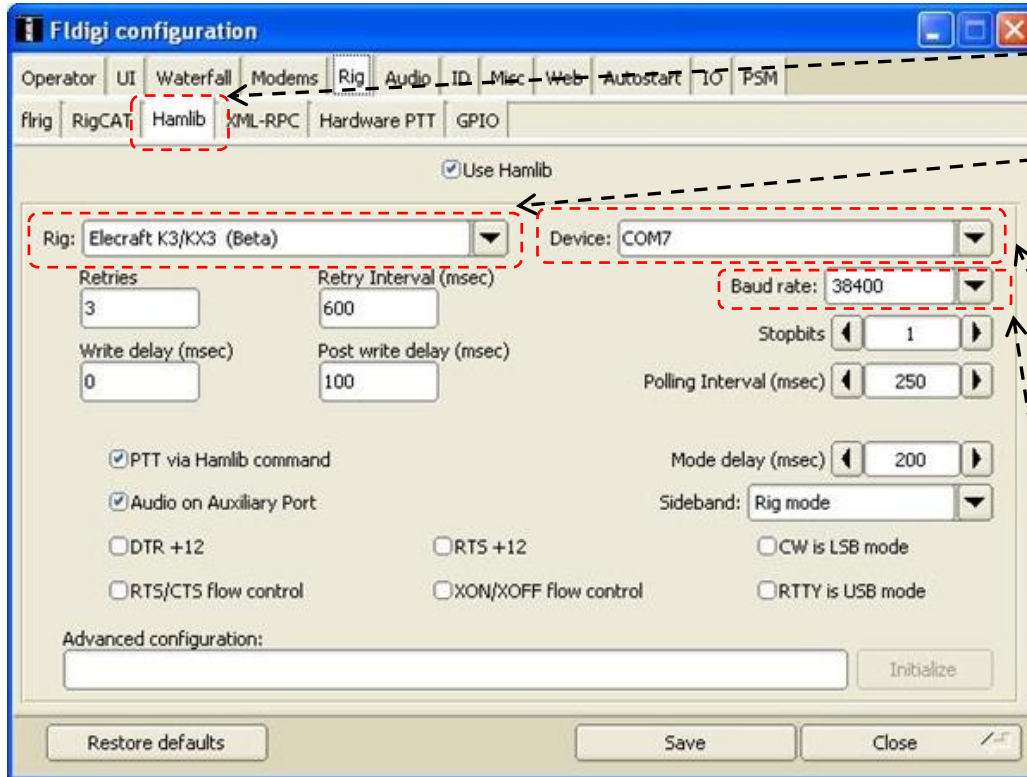


Set the Input and Output to the correct device. In my case the USB soundcard was identified as "USB Audio Device" and the Signalink USB was identified as "USB Audio CODEC." It's possible this could vary for your system. Use the Windows Device Manager to determine this for your PC.

If you are using the Signalink USB check that the output is **not** set to "Right" as the audio output won't be received by the Signalink USB.

FLDIGI

Radio Configuration



I use Hamlib for the radio interface.

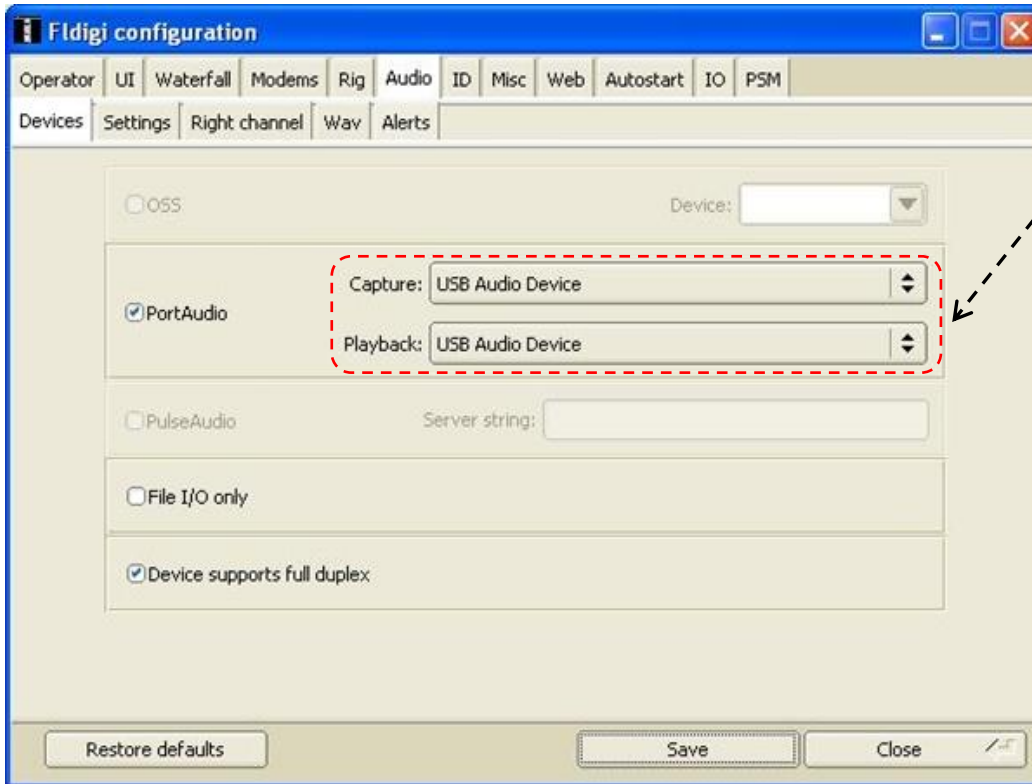
Select "Elecraft K3/KX3" from the drop-down list.
This setting works for both rigs (KX2 and KX3.)

- Select the serial port to which the KX2/KX3 USB cable is connected.
- This will vary by PC. Mine was on COM7.
- Use the KX2/KX3 Utility application to determine the correct setting.
- Be sure to shut the KX2/KX3 Utility application down so as to free the COM port for use by FLDIGI.

Match the setting of the radio (RS232 in the menu.)

FLDIGI

Audio Configuration



Set the Capture (Input) and Playback (Output) to the correct device.
In my case the USB soundcard was identified as "USB Audio Device" and the Signalink USB was identified as "USB Audio CODEC." It's possible this could vary for your system. Use the Windows Device Manager to determine this for your PC.

Additional setup notes

- This guide does not contain every bit of information that you will need in order to begin digital operations. There is a bit of other configuration to do in each software application prior to use. The manuals\help for both software applications are very well done. You will find them very useful.
- Consult the Elecraft manual for details on radio configuration.
 - Use DATA A mode as recommended
 - Set RF power to 5W as recommended
- Be sure to check the audio output levels from the PC (typically the speaker volume slider.) Typical best practice is to set the audio output level from the PC to a reasonable level (50-70% on the PC volume) and then follow the Elecraft instructions to adjust the Mic Gain in the KX2\KX3 during transmission until you see 4 to 5 bars of ALC (my Mic Gain setting ends up around 18 – 21.) If you are using the Signalink USB don't forget to set the TX level as needed for your setup. Mine is at about 1 O'clock with the PC volume at 65%. Again, these settings will vary for your system.
- If you run into issues it may help to think of the of the system in three parts in order to isolate the problem:
 - **Receive** – This only requires audio from the radio to the PC. The KX2\KX3 USB cable and rig control is not involved. Not receiving? With the correct frequency setting for the given band unplug the cable from the PHONES jack on the radio. Do you hear digital tones? If so, the problem isn't the radio. Check cables and their connections. Check mic or line-in levels in the PC. Is the audio input device disabled or muted in the PC? Is the AF Gain on the radio turned way down?
 - **Keying** – This is the primary function of the KX2\KX3 USB cable. If the radio isn't keying re-check the radio configuration in the software. Shut down WSJT-X or Fldigi and check the connection to the radio with the KX2\KX3 utility application. Verify the baud rate setting, RS232 in the radio menu.
 - **Transmit** – Requires keying (as above) and audio from the PC to the radio. No transmission being indicated? Check the audio output from the PC and\or Signalink if applicable. You can plug a speaker or headphone into the mic jack on the USB soundcard or in case of the Signalink USB use a female-to-female 3.5 mm jack with one end connected to the Radio cable from the Signalink USB and other end connected to a speaker or headphone to check for audio output from the PC. No audio? Check all the audio output levels in your PC.
- If using the Signalink USB, don't forget the jumper header. Either place the jumpers yourself or purchase the jumper board from Tigertronics, SLMODKX3.