

## Configuring Win-Test for the SO2R Box

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Date: 1/31/2010

Versions: Win-Test 4.4, SO2R Box Interface, MMTTY 1.66G

1. Before attempting to use the SO2R Box with Win-Test, you should verify that it is working correctly with the SO2R Box Utility.

Set up two virtual port pairs using com0com or n8vbcomm; in my setup, I paired COM 7 with COM 17 and COM 8 with COM 18. See the SO2R Box Manual for more information; it is a little tricky to set these up. Make note of which COM ports you are going to use for the keyer and SO2R Control.

2. Start Win-Test. If there are any Digital Windows open, close them. Close Win-Test.
3. Start the SO2R Box Interface.
4. Click the "Logger controls keyer", click the "Keyer PTT", make the Radio Boxes specify Radio 1 and Radio 2, select the correct COM port specified in the drop down box for the Keyer box and check "keyer"; select the Com port for the SO2R and then check "SO2R" In my setup, Keyer is checked and the Com port is COM 17, and SO2R is checked and the Com port is COM 18.
5. Start Win-Test.
6. Open up the Win-Test "Options", then "Configure Interfaces".
7. Configure both radios.
8. Find the port that is currently being used to generate CW. However you were doing it, TURN IT OFF.
9. Find the port or method you are currently using to generate PTT. However you were doing it, TURN IT OFF.
10. If you had a different SO2R Box Controller setup, TURN IT OFF.
11. Find the COM port that is in the pair that you set up for the keyer in Step 2 (in my case, COM 7). Check that Com port, use the drop down box to select "WinKey", then click on "Configure". Click on "WinKey default settings", then click on OK when everything is set.
12. Find the COM port that is in the pair that you have set up for the SO2R Control in Step 2 (in my case, COM 8). Check the box for that Com port, use the drop down box to select "OTRSP Compatible Device", then click on "configure". Select 9600 Bits, 8 Data Bits, No Parity, 1 Stop bit, DTR selection should be anything except PTT or CW, RTS selection should be PTT, and the "Active with" should be "Both Radios". Click OK when everything is set.

13. In my case, the setup in Win-Test and the SO2R Interface are as follows:

COM Port for Keyer in Win-Test:	COM 7
COM Port for Keyer in SO2R Box Interface:	COM 17
COM Port for SO2R in Win-Test:	COM 8
COM Port for SO2R in SO2R Interface:	COM 18

14. Click on Okay. The SO2R Box is now configured.

15. Open the Secondary Radio Window (“Windows”-“Secondary Radio”).

16. Put both Switches on the SO2R Box in the center or “Auto” position.

17. Rotate the Speed Pot on the SO2R Box. The CW speed in the Entry Window with the Tx focus should vary.

18. Press the Pause key. Win-Test Rx and Tx focus should change from one Entry Window to the other. The red LEDs on the front of the SO2R Box should change in step with the Pause key.

19. Select “Latch” on the SO2R Box Interface. Send a message on Radio 1, and the audio in both headphones should be that of Radio 2.

### **FSK RTTY with the SO2R Box**

Note: Both FSK control lines require the use of a keying interface to operate FSK RTTY.

1. The assumption is made that the SO2R Box is working correctly on CW before you attempt to set it up for RTTY.
2. You are directed to the Win-Test documentation on how to install MMTTY for SO2R Operation in general.
3. Close Win-Test, the SO2R Box Interface or Utility, and MMTTY.
4. Make a cable using a DB25 male connector. Pin 22 is the FSK TxD line for Radio 1, Pin 23 is the FSK TxD line for Radio 2, and Pin 9 is the return for both radios. The connectors on the other ends of the cable will depend on your radios and/or interfaces.
5. Install the provided EXTFSK.dll into the subdirectories of both MMTTY instances in your computer.
6. Open the SO2R Box Utility. Put a check mark where it says “Enable RTTY”. Close the SO2R Box Utility.
7. Open up the Stand-alone version of MMTTY for Radio 1. On the RTTY Engine 1 waterfall display, click on “option” then “Setup”. Go to the Tx Tab, and change the port to “EXTFSK”. Then go to the “MISC” tab and choose Com-TxD(FSK). Click OK, and a pop-up screen will ask you for the radio number, choose Radio 1,

and make sure that “Ask Every Time” at bottom is NOT checked.. Close this instance of MMTTY.

8. Repeat Step 4 for the version of MMTTY for Radio 2, using “Radio 2”.
9. Open Win-Test. If the MMTTY screens open up, open the RTTY 1 and RTTY 2 and they will make connections with the screen. There should be no pop-up windows asking for radio numbers. Win-Test may be a little finicky.
10. If your FSK signal is inverted, check the setup for your radio. You may be able to invert it at your radio. If this doesn't work, close Win-Test and the SO2R Box Interface, open up the SO2R Box Utility, and check “Invert Radio x” where “X” is your radio number. close the Utility and try again.