

Quick Start Guide to Working KH1 on FT8 DXpedition Mode

By Lee, KY7M

1. Make sure your computer clock is accurate – this is critical for success on FT8 and other digital modes. If you don't already have one, install a time program like Dimension4 or Meinberg to constantly update your computer clock.
2. Download and install WSJT-X v1.9.1 for your operating system at <https://physics.princeton.edu/pulsar/k1jt/wsjt.html>
3. Make a regular FT8 QSO on the standard FT8 frequencies shown in the WSJT-X "Frequencies" tab under File>Settings>Frequencies to be sure you have the program working correctly with your equipment.
4. Add the KH1 DXpedition FT8 frequencies from <http://www.baker2018.net/pages/plan.html> to WSJT-X under the File>Settings>Frequencies tab as follows:
 - a. Right click on the "Frequency" window and in the box that appears, click on "Insert"
 - b. Leave "All" for IARU Region, pick FT8 for mode (it is at the bottom of the mode list), then insert the first frequency "3.567" and click "OK" or just Enter
 - c. Right click again and add the next frequency on the list by highlighting over the last frequency you entered, and repeat until all have been entered
5. Activate the "Hound" setting on the "Advanced" tab of File>Settings in WSJT-X
6. Type in the full call of the DXpedition in the "DX Call" field – KH1/KH7Z
7. Click on "Generate Std Messages" on the bottom right of the main WSJT-X screen which will only show the truncated "KH7Z" in the messages generated – do *not* edit it!
8. Make sure you are consistently copying KH1/KH7Z by seeing if you are decoding their transmissions on the even second sequences of 00 and 30
9. Pick a transmit frequency either by typing in a number in the Tx XXXX Hz box or by holding the Shift key while you click with your mouse above a spot on the WSJT-X waterfall (look for a clear spot) – in either case the frequency MUST BE ABOVE 1000 Hz!!!
10. In the "Band Activity" window, double Click on "KH7Z" at the end of a CQ or a signal report with a time ending in 00 or 30 (even) to activate your transmission cycle which should show a time ending in 15 or 45 (odd).
11. Your first transmission should look like this: **180315 Tx 2450 ~ KH7Z KY7M DM33** (showing your callsign and grid) with the time in the left column ending in 15 or 45
12. If your transmissions time out after a certain number of minutes and the "Enable Tx" button is no longer red, click on it to restart transmissions.
13. Once the "Fox" at KH1/KH7Z gets your call into one of his QSO streams, you will see your transmit frequency move below 1000 Hz about the same time you will see your call and a signal report from the Fox in red.
14. Your next transmission will automatically be the responding signal report "R-xx".
15. Then watch for either an RR73 from KH1 with your callsign in red, or you sending a repeat of your signal report in yellow.
16. Once you receive the RR73 with your callsign, you can log the QSO because you are in the KH1 FT8 log.

If you cannot complete the QSO (no “RR73” received), read the following (thanks Mark, W2OR):

If you reach a point in the QSO exchange where the expected Fox “RR73” message has not been received, you should continue to send the Hound “R-xx” message up to four more times, and watch to receive Fox’s “RR73”. After this, if the “RR73” message has still not been received, you can abort the attempt and assume that a new QSO exchange will be necessary.

To initiate a new QSO, you may (or may not) find that your Hound computer program is locked into the previous QSO attempt - - that is, locked in frequency, locked on the old callsign, and locked in the old message sequence. Here is one of several work-arounds:

17. Manually clear the “DX Call” box info
18. Manually clear the Message board of callsign information
19. Move your Hound Tx frequency back to 1000 to 4000 Hz
20. Move Rx frequency for Fox back to below 500 Hz
21. Ensure the full DX callsign is entered into the “DX Call” box, i.e. “KH1/KH7Z”
22. Click on the “Generate Std Msgs” button
23. Go back to Step #10 above and try again

Finally, don’t forget to uncheck the “Hound” box when you go back to do normal FT8 operating!

If you have basic problems with getting the WSJT-X program to work, get on the reflector at wsjtgroup@yahogroups.com and ask your question or talk to your local club FT8 expert. There are plenty of experienced folks who can help.