From the Engineering Desk of

W5TXR

Schertz, TX

Yaesu FTM-400DR Crossband Repeat Function
Enable and Disable

FTM-400DR Cross-band rules:

- First off, the digital mode is disabled when cross-band is enabled. So forget this idea. I have not been able to figure out a way to make this work.
- When you enable cross-band and the FTM-400DR is in transmit the microphone is hot. Unplug the microphone when you enable the cross-band mode.
- With any cross-band situation, don't try to cross-band two repeaters unless one or both have no repeat tail. If they both have repeat tails, it will cause the radio to see-saw. So, as a general rule don't try to cross band repeat 2 repeaters.
- Prior to setting the FTM-400DR to cross-band enable, first set the Frequencies, repeat shift, power, PL/DPL, TOT.
- Turn off APRS Modem (In APRS menu)
- When cross-banding is enabled, control head is essentially locked, no changes can be made to the radio except to turn off and or disable the cross band function.
- If you cross-band onto a NBFM repeater and you are using simplex as your other band make it also NBFM.
- Make sure the power is set to either Medium or Low. Do not use high power. Remember to set power on **both** A and B sides.

- **For new hams:** You can not cross-band both A and B side in the same band, in other words, you must use two different bands during this mode.

Suggestions:

- I strongly recommend that you invest in the Yaesu SMB-201 cooling system for the FTM-400DR. It also fits the FT-8800 and the FT-8900.
- If you leave the transceiver unattended in the cross-band mode, set the TOT (Time-out-Timer) . I would suggest 1-2 minutes.

Enabling Cross-band Mode

Set a 70 cm frequency in either the upper or lower display, using either the VFO or memory.
Set a 2 meter frequency in the other display, using either the VFO or memory.
Turn the FTM-400 off.
Press and hold the lower 3 buttons to the right of the display then press the power button. "X-BAND Repeater" will be displayed between the upper and lower frequency displays, if the FTM-400 transferred into cross-band repeater mode.

Now, you can enter a 222 mhz frequency in the bottom display and you would have a one way repeat mode. Example, 223.5000 CSQ simplex on the bottom display and on the top (My repeater) 444.8250 DPL 172 , so my repeater would work normal but it would also repeat everything it would hear on 222.5000 also but, because the FTM-400DR lacks the ability to transmit on the 1.25 meter band full cross-band repeat would be impossible.

During an emergency (and with authorization from the county EC) you could Cross-band a fire frequency onto a 70cm simplex frequency. To have full cross-band capabilities you would need to do the MARS-CAP modification.

Example: Top mode Fire /Search and Rescue 155.1600 NBFM PL 127.3
And bottom mode (ham side) 446.0050 NBFM CSQ

Disabling Cross-band mode

Press and hold the lower 3 buttons to the right of the display then press the power button. "X-BAND Repeater" will not be displayed between the upper and lower frequency displays, if the FTM-400 transferred out of cross-band repeater mode.

Return the frequencies to your preferences.
Turn the APRS modem on, if you run APRS.

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