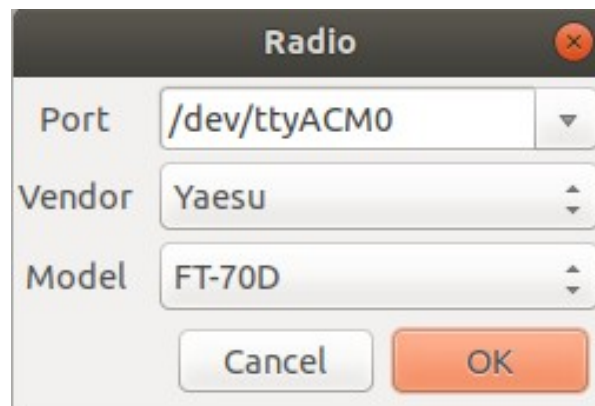# Yaesu FT-70DR - CHIRP Programming

CHIRP programming of the FT-70DR is a bit hit or miss. Here are some tips that should help.

Plugging in the battery while pressing the POWER and AMS buttons is very difficult. It's possible to plug in the battery and then quickly press the two buttons to sometimes enter ADMS (USB communications) mode, but that might enter a false ADMS mode that results in USB communications errors. It's better to do the difficult simultaneous three actions. It's easier to hold in the two buttons and then push the radio down onto a desktop insert the battery.
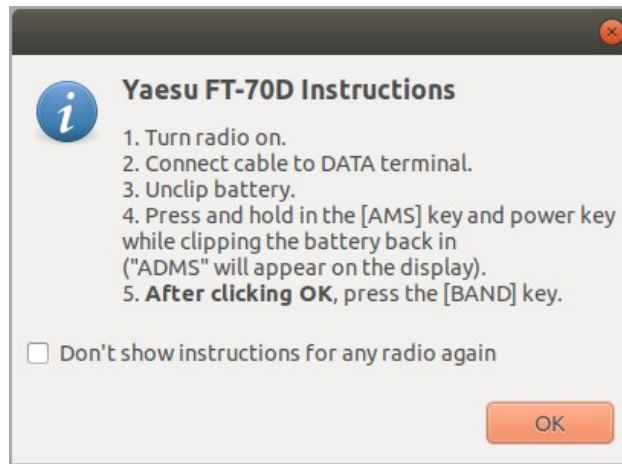
Always use the USB cable that shipped with the FT-70DR. It looks like a standard USB cable but apparently it's not. A charging cable (no data lines) definitely won't work, but a USB data cable didn't work either but the Yaesu cable does work.

Even if you have a .img file to upload, always download from the radio first (click Radio – Download From Radio), before attempting to upload to the radio. If not, the upload will fail with an error and the errors will occur sequentially after that.

When downloading, the USB device should be ttyACM0, or perhaps a differently numbered ACM tty. The FT-70DR should be at the top of the port list. When downloading, none of the three entries in the popup should be grayed out. Grayed Vendor or Model entries are a clue it's not going to work.

Click OK and follow the instructions provided in the next download dialog box exactly.

After the successful download, there is no need to unclip the battery for the subsequent upload to the radio. Those instructions in the upload dialog box may be ignored. Once the FT-70DR is communicating in ADMS mode, initiate the upload (click Radio – Upload To Radio) to get the upload instructions, press the MODE key on radio to initiate the upload on the FT-70DR and then click OK in CHIRP to start the upload.

If a USB communication error occurs, it may be best to exit and restart CHIRP.

As of January 1st, 2020, CHIRP only supports AM and FM modes. CHIRP does not support System Fusion digital modes. It's best to program the analog channels with CHIRP and then manually program the digital channels.

Diagnostics: In Linux, press Ctrl-Alt-T to open a terminal and enter the dmesg command to watch USB devices being plugged and unplugged. The lsusb command will show a list of USB devices. The FT-70DR should appear in the list as ID 26aa:0001 but the device description field is blank.

January 1st, 2020 - NI4B