

MOTOTRBO out of band modification for the 800/900 MHz radios, to put them on the 902/927 MHz Analog Ham frequencies. (XPR 6580 & XPR 4580)

Here is a simple, yet effective out-of-band modification for Motorola MOTOTRBO radios. Please note that once this mod is performed, you must use the backup file created for any future editing out of band. Any attempt to read the radio via the CPS will automatically restore default values instead of the "incorrect", out of band frequency entries, and the process will have to be repeated. Perform this mod at your own risk! And please don't ask me for software. Register and purchase the software from Motorola at <businessonline.motorola.com>

This process can get a bit tedious and repetitive, but it does work.

1. Download and install {HxD}, an excellent free HEX editor.
<<http://mh-nexus.de/en/downloads.php?product=HxD>>
2. Launch Mototrbo CPS, Read the radio and save the file, and leave the CPS window open.
3. Make any custom changes to the codeplug at this time. (Radio name, Buttons, etc)
4. Go to the "Zone" and right-click on "Zone" and add an Analog channel.
You can name the channel now or later.
5. In RX field, if it doesn't have 935.000000, then enter that. (6 zeros after decimal point)
6. In TX field, if it doesn't have 902.000000, then enter that. (6 zeros after decimal point)
7. Launch HxD, Click on "Extras" > "Open RAM" and click on "mototrbocps.exe".
8. Next, press Control+R (or Search > Replace)
9. Enter 935.000000 in "Search For" and your new Receive frequency in "Replace With"
Be sure you have 6 places after the decimal point. (Ex: 927.587500)
10. Keep "Datatype" at text-string, check the "Unicode String" and "All" boxes and click "Replace All".
11. Click on "File" > "Save" (in the HxD utility) when finished.
12. Next, press Control+R (or Search > Replace) again.
13. Enter 902.000000 in "Search For" and your new Transmit frequency in "Replace With"
Be sure you have 6 places after the decimal point. (Ex: 902.587500)
14. Click on "File" > "Save" (in the HxD utility) when finished.
15. Return to your open CPS program, and make sure the changes took affect in RX & TX fields.
16. Go to Step 4 above and repeat for all channels needed.
17. The next step is to edit your channels for PL/DPL and for "Admit Criteria", use "Always".
Check the "Allow Talkaround" box for each channel. Remember, 900 MHz is only 12.5 KHz.
Now SAVE THE FILE under a NEW, different name.
This saved file will now ALWAYS have the modified frequencies and should be used for any additions.
18. PROGRAM THE RADIO, and Enjoy!
This file can also be used for "Cloning" another radio of the same type.

Any attempt to read the radio will result in the deletion of all "out of band" frequencies in the radio. It will not be bricked; just the information would be lost. Use the saved file to restore the radio if this happens.

I hope this information was helpful. Lou, WA6EPD