TECHNICAL NOTES

TN124 Noise Bin Adjustment

Noise Bin Adjustment

Occasionally it is necessary to make adjustments to the noise bins for receiver ports in a vote group. The adjustment is generally indicated if a noisier receiver or receivers are voting over better receivers. To adjust the noise bins perform the following steps:

1. Connect the M4x Blade to the software.
2. Open a Receiver Port settings tabs and select the **"SNR"** tab.
3. Click on the **"Advanced Button"** and select **"Yes"** on the warning message to open the menu (Figure 1).
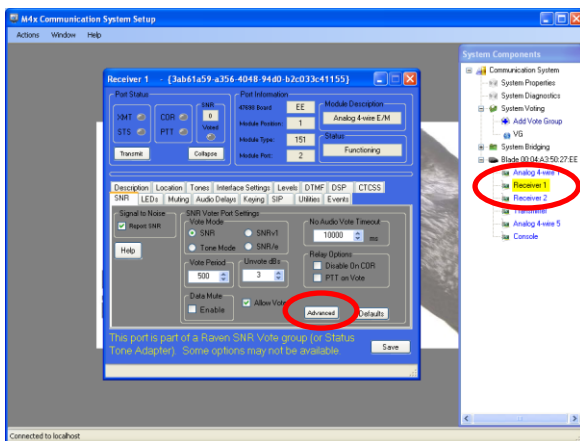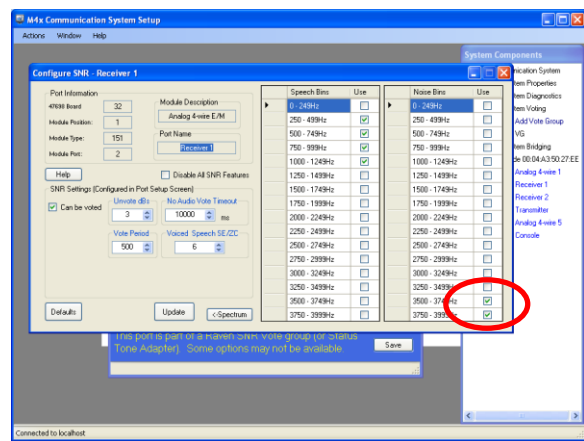

Figure 1

Figure 2

4. Note the Noise Bins in the right hand column in Figure 2. These will be the bins you adjust. Do not adjust the Speech Bins in the left hand column.
5. To begin, uncheck one of the two bottom Noise Bins. Do not uncheck both.
6. Click the red **"Update"** button to save the bin changes (Figure 3). Close the menu and save any when prompted. Repeat this process to change other receiver ports.
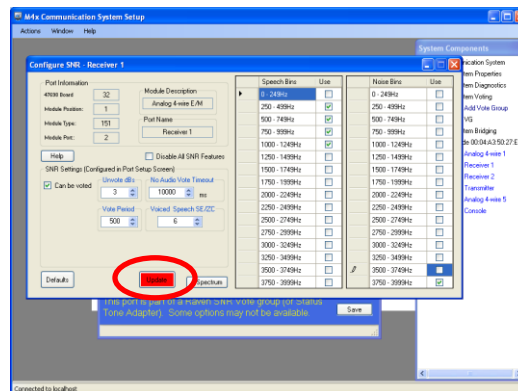

Figure 3

7. Test the receivers to confirm they're voting the correct receiver. If they do not, you will need to repeat the above steps, but this time recheck the bin you unchecked and uncheck the bin that you left checked.

8. If you are still experiencing noisier receivers voting over better ones, then repeat the above steps only begin to add more noise bins beginning with the 3250 Hz to 3499 Hz bin. You can typically stop adding bins at 2750 Hz to 2999 Hz, as most noise is found above this frequency. This will be somewhat of a trial and error process where you will need to find the right combination of noise bins. Usually, unchecking one or the other of the bottom two bins (3500 Hz to 3749 Hz or 3750 Hz to 3999 Hz) will solve the problem, but occasionally, you will need to include additional bins in some combination of checked and unchecked bins. Different regional/geographical conditions, types of radios used, etc. all affect the noise bin adjustments, so no set formula will work in all circumstances. The bottom two noise bins checked by default work in most voter setups, so they are checked by default when the vote group is first set up in software.

9. When finished and you are satisfied the receivers are voting correctly, be sure to save your changes and save to firmware or flash. Be sure to test again after saving to flash and cycling the power before leaving the site.

10. Raven encourages you to share your noise bin adjustments with us based on your experience. If sharing with us, please include details on your voter setup, make and model of all radios, repeaters, transmitters used and any other details you might think helpful. This will help our technical support as well as product improvement for the future.