

NOISE ABATEMENT ON HF RADIOS

With band conditions at best deplorable, and thunderstorms from 500 miles away wreaking havoc on HF band conditions, here are some options and accessories that can be used to “cut through the mud” of HF noise.

If you are buying an HF radio, there is a lot of difference in “DSP” filtering. Many radios have a DSP filter. But, they are not all the same. Some are a “noise” filter, which does nothing to tailor the audio of the receiver. True, they do cut down on noise, but only help a little in high noise conditions.

Audio DSP filtering is now starting to appear on some entry level HF radios. These radios usually have a combination of DSP noise filtering and DSP audio filtering. These are desirable, and usually do a great job of noise abatement. It does take some practice to use the filter system, and because everyone's hearing is not the same, neither will settings be the same.

Also, an ANF or automatic notch filter is a huge plus as an option on a HF radio. Punch the filter in, and all the sudden a whine or whistle is gone. No “tweaking” of the setting to find the notch. An algorithm in the radio does it for you. Just remember, you can't use the ANF on CW or other digital modes! But, in those modes, the notch is not needed anyway. Audio filtering works best for receiving these modes better.

Do you have to buy a new radio to get good filters? NO! There are many accessories that can be used to filter noise and audio. Some can be had as cheaply as \$25. Others are higher. Look for “audio” or “DSP Audio” filter units. These units, coupled with a HF radio that may have DSP noise filtering and an ANF work very well. Many of the external units also do filtering for specific modes, such as CW and RTTY. Look for a fully adjustable one. While the “narrow” filters are available for every HF radio, they can be expensive, and limit you to a specific width, say 1.8 or 1.9 KHz for SSB, or 500Hz for CW. A fully adjustable external unit will let you narrow the bandwidth, as well as move that narrowed width up and down the spectrum to clarify the received audio.

Your RF gain control can be used to help fight noise. Once you have a station tuned in, decrease the RF gain until you only hear the station. Ignore your S-meter. Just listen. And don't forget to increase your RF gain when copying another station! You might not hear the “weak ones”.

Even antenna orientation can make a difference. Different polarizations, as well as compass orientation, height and types of antennas may help.