

MT



REVIEW

Heil Clear Speech Speaker

By Ken Reitz KS4ZR

As a longtime short wave and medium wave listener, I've tried many ways to get better audio from my radio. Mostly it's my radio's fault: it's got a dinky little 2-inch speaker which fires through the top of the radio and directly into a shelf; it has audio circuitry designed to reproduce a narrow range of the audio spectrum; and it has no capability for modern Digital Signal Processing (DSP).

To help, I've added small speakers which simply redirected the sound but didn't improve it. I've added a powered hi-fi computer speaker, but the sound was too bassy. I've added a speaker and a graphic equalizer but I still couldn't do anything about atmospheric or man-made noise on the bands. So, I just gave up and lived with the fact that I simply expected too much from my radio. Or so I thought.

❖ Heil Sound Comes Through

Bob Heil, K9EID, has made a very successful career out of cleaning up the garbage left by the oversights of radio manufacturers. As with

his successful Heil Pro series microphones for hams and his Quiet Phone active noise canceling headphones, he's simply improving the audio where the world's big manufacturers came up short.

Throughout the last 15 years there have been many attempts to fix the HF audio problem, but now, thanks to a combination of audio technology and electronics, the Heil Clear Speech speaker may just be the answer.

The Clear Speech speaker is housed in a sturdy 5" x 5" x 8" black plastic cabinet with a strong metal mesh grill. On the right of the front panel are controls for on/off, volume, tone, a five position DSP switch and headphone jack. The back has jacks for power (12 volts); input from your radio via 1/8" audio cable; and a jack for an external 8 ohm speaker. There is also a removable mobile mounting bracket. Connecting a pair of headphones mutes the speaker.

❖ Clear Speech in Operation

This speaker couldn't be easier to use. After

joining the speaker to my radio via the mono audio patch cord (included) and using a 13 volt 300 mA wall transformer (not included), I was set to experiment with shortwave and amateur radio audio.

According to the brief but useful instruction sheet, the volume control should be set to 5 o'clock, the highest position. The tone control should be set between 10 and 5 o'clock, depending on your listening preference. The DSP control in the 0 position by-passes the DSP circuitry and it really shows the difference between the unaltered signal and the various levels of DSP.

I found that the narrower the bandwidth of the transmission, the less DSP I could use without the signature ringing sound that accompanies digital audio processing. For instance, listening to a 75 meter side-band net in the morning, I set the DSP to 1 and virtually eliminated background hiss and light static crashes. Listening to AM signals from the international broadcasters was similarly improved, but I could go up to 4 or 5 on the DSP switch, depending on band conditions and station signal strength. The audio from the Clear Speech speaker was crisp with none of the mushy bass sound heard from powered computer speakers. It was not distorted either, despite being cranked up to a level great enough to fill a large room.

Here are two important notes for hams: It's recommended to use a separate 12 volt d.c. power supply and not the power supply you use to power your transceiver. And, if you run a linear power amplifier and there is stray RF present in your shack, you'll have to use a ground wire (included) which plugs into the external speaker connection and attaches to your station ground system.

Each speaker is tested under harsh stray RF conditions at the factory before being shipped. I found that at 100 watts and lower there was no problem with RF in the audio.

❖ Last Word

Don't look for this or any other speaker to do away with the main problems of analog short-wave listening: fading, weak signals or bad audio from broadcasters. No amount of digital trickery will help. Instead, consider upgrading to a better receiver and/or put up a better antenna.

If you're tired of battling mushy audio from tinny speakers, irritating atmospheric static and want to be able to listen at a volume which won't cause distortion in the little speaker which came with your radio, try the Heil Clear Speech speaker. Cost is \$210 plus shipping and handling. It's available from several MT advertisers or direct from Heil Sound, LTD 618-357-3000 or visit the web site at www.heilsound.com



Heil Clear Speech Speaker on your desk or in your vehicle. This small package delivers a big sound from your shortwave receiver or ham transceiver. (Courtesy: Heil Sound Ltd.)