

How is an HD Radio different from a regular FM radio?

HD radios sound better.

Regular FM radio has the ability to produce high fidelity sound under the right reception conditions. FM frequencies require a line-of-site path between the FM transmitter and the receiver. Hisses, pops, static, and fading occurs because FM signals are reflected from obstructions such as buildings -- or from you when you move around the room where your radio is located.

HD radio differs by using digital technology. This technology minimizes reception problems and offers freedom from the interference described above. Also, digital technology allows stations to squeeze in additional services, thanks to cutting edge compression technology.

HD radios receive more stations than FM radios

Can I receive the HD channels everywhere that I can hear KEKS/KSNP?

Unfortunately, not necessarily: The current digital HD system was designed to offer a service that permits receiving the analog FM signal along with the new digital signals. This requires a careful balance by engineers to establish the power of the digital channels so as to maximize coverage without interference to the existing analog service. Luckily, it takes much less power for a digital signal to cover a specific listening area than its analog equivalent. In order to provide side-by-side analog and digital service in the FM broadcast band, the power of the digital signals is only 1/100th the power of the analog signal.

Nonetheless, most listeners within the KEKS/KSNP listening area have reported good results in receiving our digital signals. Our intention is to share the experiences and recommendations of our engineers and listeners who can suggest ways to successfully receive the KEKS/KSNP digital channels.

Anecdotal experience from listeners and our engineers thus far suggests that listeners within the strong signal area contour on the map should be able to receive an excellent signal with a properly placed indoor dipole antenna. Factors which will affect successful reception include whether or not a listener's location has a direct line-of-site to the KEKS/KSNP.

Generally speaking, locating any FM radio, including an HD radio, on the side of the building facing the transmitter and as high as possible will yield the best

results.

An important factor to remember is that an analog FM signal fades gradually as the distance from the transmitter increases. The signal becomes noisier and there is more interference. With a purely digital signal, there will be either perfect sound or no sound. In a strong signal area, the signal will be excellent: no fading, no pops, clicks or hiss, but as the signal drops below a threshold level, the signal disappears completely.

In addition, when tuning to a digital signal, it can take up to five seconds to capture the signal so there are several seconds of silence before the station is heard.

To minimize this problem, the HD technology is designed to first capture the analog signal and gently blend to the digital signal when you tune to a station broadcasting its main channel in HD. In areas where the digital signal falls below this critical level, KEKS/KSNP reverts to the analog signal. However, the additional digital channels do not have a corresponding analog signal. Therefore, when the signal falls below a certain level, the station will go silent. It may alternate between full sound and no sound depending on the actual signal level. It is important for our listeners to understand this difference between reception of the KEKS/KSNP main channel signal and digital signals.

I bought an HD radio but I'm having trouble hearing the KEKS/KSNP digital channels.

We suggest you first take a look at our coverage map and determine how close to the limit of the primary signal contour you are. If you are relatively close to our transmitter check the following:

Did your HD radio come with a dipole antenna?

A dipole antenna can be identified by its shape. It is in the form of a T. Dipole antennas are inexpensive and available at many electronic retail stores. A dipole antenna captures an FM signal much better than a simple piece of wire. It also receives signals primarily located 90 degrees to the direction of the extended T portion of the antenna.

Usually the higher the dipole is mounted, the better the reception, and you may need to experiment with several locations. Connect the leads of the antenna to the antenna terminals on the back of the HD radio.

I am still having problems receiving the KEKS/KSNP digital signals.

Sometimes relocating the receiver or even trying a connection to a TV antenna or

rabbit ears will bring in the signal. Some listeners report that they have found an amplified indoor antenna works for them. However, in many cases the amplified antenna overloads, and interference from nearby strong stations prevents reception of distant stations.

If this does not produce an acceptable signal and you are a passionate listener to KEKS/KSNP, then it may be necessary to obtain an FM antenna to be mounted in your attic or outside on the roof. FM antennas vary in size and cost depending on the number and type of elements designed to bring in distant signals.

They are available at some local electronic stores or online. You may need to get assistance for the selection of the antenna and its installation from a professional installer.

I'd like to listen to KEKS/KSNP digital signals in my car. What's involved?

Those of us who have installed an HD radio in our cars have been very pleased with the results. Not only can we hear the new digital signals, we also hear the KEKS/KSNP main signal without multipath distortion – the pops, clicks, and distortion often heard when driving near tall buildings and in hilly areas.

Installing a new radio seems daunting to some; others like their current factory installed radios. Professional installers **Giger's Street Rods** in Emporia ([620.342.6293](tel:620.342.6293)) can complete a professional installation of an "after-market" radio such as an Pioneer 33HD CD Receiver with HD, MP3 and USB ports in a couple of hours. Templates are available for most car models so the finished installation makes the new HD radio look like it was factory-installed.

[BMW recently announced a factory-installed HD radio options for their 2008 models.](#) It's likely to take several years for a significant number of auto makers to include HD radios in their models. For those who can't wait, the radios mentioned here are great additions to the listening experience in your car.

Any other suggestions?

Several listeners in outlying areas with some technical savvy have added an antenna preamplifier to increase the KEKS/KSNP signal even more. This approach is most effective when the preamplifier is mounted near the antenna. Some experimentation may be needed and results aren't guaranteed. Consider ordering outdoor antennas and amplifiers from a store that has a return policy.

Where can I get more information about receiving HD Radio on KEKS/KSNP?

After reading this FAQ, feel free to contact us with your questions. Also, we'd like to hear from you about your experience with digital reception.