DTV and Antennas

Millions of households depend on the use of indoor or outdoor broadcast antennas to receive analog television signals from local broadcast stations. It is important to know that antennas are also needed to receive digital television signals from local broadcast stations. While the country will complete its transition from analog to digital broadcasting for full-power broadcast stations on February 17, 2009, TV viewers can enjoy the benefits of digital broadcast television today.

Digital television (DTV) offers the opportunity for improved picture and sound quality and new programming choices. If you have one or more analog televisions that receives free, over-the-air television programming with a rooftop antenna or "rabbit ears" on the set, you will need a "digital-to-analog converter box" (which converts digital broadcast signals to analog for viewing on your analog set) in order to continue to watch programming from full-power broadcast stations. If you have a digital television (a TV with a built-in digital tuner), you are already prepared for the DTV transition. If you receive your local broadcast stations through a paid provider such as cable or satellite TV, you are also already prepared for the DTV transition.

You should be aware that if you use a digital-to-analog converter box, you will still need to use an antenna to receive DTV signals. It is also important to know that if your television currently receives good quality reception on analog channels 2-51 with a broadcast antenna, it should be able to receive digital television signals, including high definition television (HDTV) signals, with the same broadcast antenna. You do not need to purchase a "DTV antenna" or an "HDTV antenna" to receive DTV or HDTV signals.

Testing Your Existing Antenna

Prior to making any changes to your current antenna or antenna system, you should check to see if your current antenna will receive the digital signals being broadcast in your area. To do that, connect your existing antenna to either a digital television or a digital-to-analog converter box connected to an analog TV. Make sure your TV is set up to receive over-the-air broadcasts (as opposed to being connected to a paid provider, such as a cable or satellite TV company). When using a digital-to-analog converter box, make sure you have it properly connected to your antenna and to your analog TV. You must also tune your analog TV to either channel 3 or 4. You should then perform a "channel scan," in which your digital-to-analog converter box or digital TV will automatically check to see which stations it can receive. You can access the channel scan feature through the "set up" or "menu" button your remote control. You should refer to the owner's manual and any set up guides of your digital-to-analog converter box or digital television for detailed

instructions on connections and operation of your device, including how to perform a channel scan. You should also perform a channel scan periodically to check whether additional digital channels have become available. In many cases, this is all you need to do watch digital television broadcasts.

Help With Reception Problems

If you are experiencing reception problems, the following information and tips may help improve your reception for digital broadcasts.

Adjust Your Antenna

Small adjustments to your antenna can make a big difference in the number of digital channels you can receive. If you have an indoor antenna, try elevating it and moving it closer to an exterior wall of your home. After adjusting your antenna, perform another channel scan to see if your reception is improved. While adjusting your antenna, it may be helpful to access the "signal strength meter" on your digital-to-analog converter box or digital television to determine whether your adjustments are improving the signals' strength. The signal strength meter is usually accessed through the menu feature on your remote control. Refer to the owner's manual of your device for instructions on how to access its signal strength meter. Remember to do another channel scan after you have adjusted your antenna.

It is also important to know that television stations broadcasting in digital use both the VHF band (channels 2-13) and UHF band (channels 14-51). Many indoor antennas use "rabbit ears" for the VHF band and a "loop" or "bow-tie" antenna for the UHF band. Make sure you are using an antenna that covers both the VHF and UHF bands and have connected it properly.

If You are Still Having Difficulty

Until February 17, 2009, some stations will be operating at reduced power levels. If you are not receiving certain digital TV stations, this does not necessarily mean there is a problem with your antenna or digital-to-analog converter box or digital television. Check with the TV station to find out whether they are planning changes that will improve reception.

When an analog TV signal is weak or receives interference, static, snow, and distortion will often appear on the screen. Digital broadcasting will provide a clear picture; however, if the signal falls below a certain minimum strength, the picture can disappear.

This "cliff effect" means that if you watch analog TV stations that have static and distortion, you may have to adjust or upgrade your antenna system.

Simple indoor antennas provide minimal performance that may not be suitable for your location. If you are unable to obtain satisfactory reception with your current indoor antenna, you may wish to obtain an indoor antenna that includes features for better reception of UHF signals and/or an amplifier to boost the received signal (often referred to as an active indoor antenna).

Generally, an outdoor antenna will get better reception than an indoor antenna. However, the performance of outdoor antennas can degrade over time due to exposure to the weather. If you are having problems, check for loose or corroded wiring, broken antenna elements and that the antenna is pointed in the right direction.

If you decide to replace or upgrade your indoor or outdoor antenna, many types are available from electronics retail stores at a variety of prices. Websites such as www.antennaweb.org provide information on the locations of broadcast towers and the types of outdoor antennas appropriate for the stations you wish to receive. If you need assistance with upgrading your antenna system, check with a local antenna retailer or antenna installer. For more tips that may help to improve your reception for digital broadcasts, go to www.fcc.gov/cgb/consumerfacts/dtvantennas.html.

For more information about the DTV transition, go to www.dtv.gov or contact the FCC by e-mailing dtvinfo@fcc.gov; calling 1-888-CALL-FCC (1-888-225-5322) or by TTY at 1-888-TELL-FCC (1-888-835-5322).