

THE DIGITAL CONVERSION OF FREE TV

Some Notes from the Viewer's Side

SPECIAL REPORT BY JIMG FOR 3GENFAMILY BLOG

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In the upcoming weeks, once the Presidential election hoopla has died down, you will hear more and more about the planned conversion of "free TV" from analog to digital broadcast format (DTV) on **Feb. 17, 2009**. What this means is that if you have a TV that was made before 2005 and you don't have cable or

satellite service (i.e., you get your TV signals for free via an old-fashioned antenna at your home), you will no longer be able to watch anything unless you buy and install a digital converter box.

Note: there are some exceptions to the 2005 date; some big-screen projection TV's before that had digital tuners installed, and some TV's sold after 2005 still did not have digital. It would be best to check your TV's owner's manual, or consult the manufacturer's web site.

The federal government is making an effort to publicize the need for a converter box, and is offering up to **two \$40 coupons per household** for their purchase. There are a variety of converters available on the market at a range of prices, but well-rated ones are now going for about \$60 to \$70. So, with the coupon, the cost to get a digital converter box shouldn't be much more than \$20.

HOW TO GET YOUR COUPONS

ONLINE:

REGISTER AT www.dtv2009.gov

BY PHONE:

1-888-DTV-2009

BY MAIL:

CONVERTER BOX COUPON PROGRAM
PO Box 2000,
PORTLAND, OR 97208-2000



One in Four Seniors Don't Know

There is increasing concern that many senior citizens will be adversely impacted by this change. Many seniors have limited incomes and thus cannot afford new TV's or cable or satellite service.

A [recent poll from Retirement Living TV](#) showed that about one in four seniors were not aware of the upcoming DTV transition. This number is even higher – one in three -- for seniors with less formal education.

Senator Hilary Clinton recently sent President Bush a [letter urging the formation of a federal task force](#) to assist seniors and low income families prepare for DTV. Senator Clinton said, "Above all, it should tell us that if

we do not take more aggressive steps soon, we risk leaving millions of Americans in the dark, without access to the critical news, weather and public safety information that they currently access through over-the-air analog broadcasts."

Converting My TV to Digital

Being in something like a fixed-income situation myself because of the need to financially support a disabled 86-year old parent, I am not a cable or satellite TV subscriber. As such, I am in no hurry to replace my six-year old TV. And OK, I'm also a cheapskate at heart! So I studied up on the DTV situation and decided to take the plunge.

Step 1 – Get Your Discount Coupon

I applied for the \$40 coupon (which took about 3 weeks to arrive in the mail) and then found a fairly good on-line deal for a converter box that was well regarded in this [recent Consumer Reports review](#).

Step 2 – Buy Your Converter Box

The seller's web site accepted my certificate number and charged me a net sum of \$18 for purchase and shipping of my digital converter box.

Not bad!

In a few days the box arrived at my apartment, so I rolled up my sleeves and took the digital plunge. (Converters are also widely available at local electronics



FIGURE 1 - DIGITAL TV CONVERTER BOX PHOTO BY JIMG

stores and big-box retailers like K-Mart, Wal-Mart, Target and Best Buy; they all accept the government coupons).

The official publicity regarding digital conversion states that installing a digital converter box is fairly easy, and that there shouldn't be any significant reception issues if you already get acceptable reception from your current antenna and TV set-up. Well, I generally agree with the first contention.

If you're handy with things like hooking up stereo speakers or computer printers, the wiring and set-up for a DTV converter should be no problem. However, seniors with limited mobility or who are unfamiliar with modern consumer electronics may not be able to do it; hopefully they can tap a younger relative or trusted neighbor to help set them up.

Step 3 – Getting the Channels You Want

Unfortunately, what happens after you have connected the wires and plugged in the new converter is not necessarily so simple. I, too, was previously under the impression that you simply attached the converter between your antenna and TV, and life went as before.

NOT TRUE

First, you no longer use the channel-changer (tuner) on your old TV. You will most likely leave the TV tuner on 3 or 4; the actual channel selection will be done by the converter box. Most converters come with a remote control which changes the channels; so you need to get used to pointing it at the box, not the TV. (Or, you could also press a button on the converter box.)

Will you be able to get all of the stations that you previously received?

MAYBE, BUT NOT GUARANTEED

On first use, the converter box will scan the signals coming into the TV from your antenna, and will set itself up for the channels that seem strong enough. The first time I turned on my TV and converter box, I got all of the major stations EXCEPT for the one I like best -- the NY area PBS station, WNET (channel 13). Yikes, life without PBS!

I was able to finally get WNET on a manual re-scan, but it took some fiddling with my antenna -- I'll describe that in a minute. On the positive side, I also am now able to get some stations that I previously could not. Interestingly, some stations now offer multiple versions; e.g., NBC 4 offers a weather station on "4-2" and an amateur sports channel on "4-4", while regular NBC comes in on "4-1".

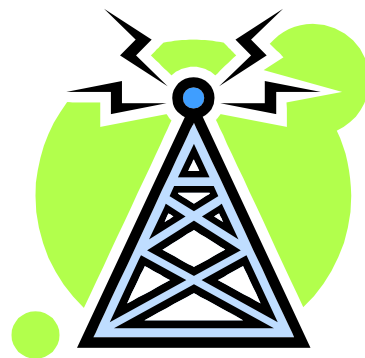




FIGURE 2 - TERK TV-1 ANTENNA
PHOTO BY JIMG

Step 4 - Fixing A TV That Blinks

I live about 14 miles from the antennas for most of the major NY metro area stations, and since I live in an apartment, I rely on an indoor antenna (yes, good old rabbit ears, albeit one of the most highly regarded "rabbits", i.e. the Terk TV-1, which costs in the range of \$10 to \$15). To be honest, Once I plugged in the converter box, my digital reception was rather unsatisfactory when the antenna was in the same place I previously kept it.

Digital reception is a tricky thing; instead of getting increasingly cloudy or "snowy" pictures as with the old analog, the picture freezes and blacks out when the digital signal gets weak. My reception of even major stations (CBS, NBC, ABC) would tend to blink or go black for a few seconds, then come back steady for a few minutes before repeating the cycle. And on rainy days, the blinks and black-outs became unbearable.

I'm a bit of a tinkerer, so I went to Home Depot and Radio Shack and got an A/B switch, some coaxial cables, Type-F connectors, wood sticks and duct tape, and rigged up an indoor antenna system that works correctly about 95% of the time.

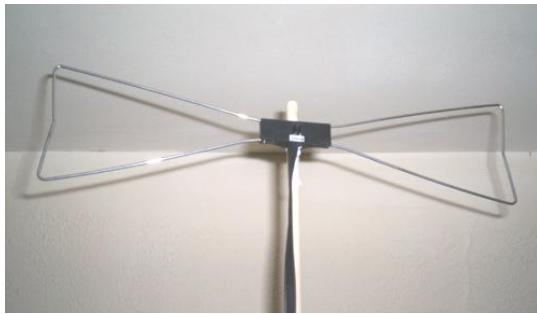


FIGURE 3 - BOWTIE ANTENNA

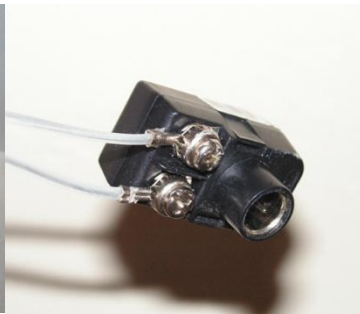


FIGURE 5 - BALUN CONNECTOR



FIGURE 4 - 25 FOOT COAXIAL CABLE

First, I got a \$5 bowtie antenna from Radio Shack together with a \$7 75-ohm "balun" connector. This "mini-bowtie" is a small antenna that is more attuned to the UHF signals, which most digital stations are carried on.

Then I hooked it up through the balun to a 25 foot coaxial cable and walked the house looking for a "sweet spot". I did the same with the rabbit-ears, and found its own "sweet spot" (both spots tended to be near the ceiling; every inch of height seems to help).

Why I Needed Two Antennas

As it turned out for me, some stations come in better with the bowtie, some with the rabbit ears; so I have an "A/B switch" that allows me to flip from one to the other as needed.

Another tip: the rabbit ears work best for me in a near-vertical configuration (think about those pictures of Winston Churchill giving the "V" sign with his fingers).



FIGURE 6 - A/B SWITCH

Why Not Just Buy a Digital TV Antenna?

There is no such thing as a special "DIGITAL TV ANTENNA", although various sellers will try to make customers believe that there are. A roof or attic antenna that gets a strong signal for analog should still work well for digital.

For indoor purposes, bowties and loops are better for UHF, while rabbit ears are better for VHF, whether analog or digital. There is also the indoor "Silver Sensor" PHDTV-1 by Philips, whose price falls between the \$12 rabbit ears and the \$50 amplified antennas. Some people report getting good results with this, especially on the UHF side.

Unfortunately, when the dust settles on Feb. 17, 2009, some digital stations will be on VHF, whereas others will be on UHF; as such, indoor antennas in the post-digital TV age will remain a tricky proposition. For more on the overall antenna question, along with recommendations based on where you live, see [Antenna Web](#).

Another Choice for the TV Antenna

Of course, I could have bought a more expensive "amplified indoor antenna". Many store clerks will advise free TV digital converts like me who are having reception problems to try these. But, be careful; I've looked at a lot of web-site reviews for amplified antennas, and they generally do not guarantee better reception. Some people have had good experiences with them, and many haven't. If you decide to buy one, make sure the merchant has a liberal return policy.

Not All Stations Are Required to Go Digital

Since I live in a major metro area, all of the stations that I watch already broadcast on digital; however, in some regions of the country, certain "low-power" stations or "translator" stations have no digital equivalent and will continue to broadcast on analog after Feb. 17. The digital change-over law exempted such stations from the conversion requirement (although some will change over voluntarily). These stations are often hosted by local colleges or universities, or serve small rural communities.

In case you want to continue watching one of these stations but still be ready for digital on the major networks, you will need to get a converter box that has "analog pass-through". Not all do.

How Do You Know Which Stations Are Low-Power?

You can go to the web site [LPTV Answers.com](http://LPTVAnswers.com) and search by zip code. The website also has a detailed list of converter boxes with "analog pass-through" on the right side of the home page.

You can also get detailed information on what will be broadcast on both analog and digital channels before and after Feb. 17 on [TV Fool.com](http://TVFool.com) (you can look this info up on TV Fool without registering and giving away your e-mail address). This site gives you good technical info on how far the TV transmitters are from your house, how strong their signals are, what direction they come from, etc.

What To Do If Your Station Changes Its Spot on the Dial

In the New York City area and, I suspect, in most metro areas, many TV stations will change their digital frequencies on Feb. 17. If you set your free TV up for digital before that date, it will be important to remember how to use the "channel scanner" on your converter box, as you will need to do a new scan right after the conversion. Otherwise, some of the digital stations you were watching before Feb. 17 will seem to black out. They will appear again once you tell the converter box to scan for all channels a second time.

The Truth about Digital TV

When digital free TV works, it works very well; picture quality is generally excellent, and you get a bit more variety for free (but not, of course, what you would get by cable or satellite; there aren't any first-run movie or professional-sports channels). But it can also be frustrating. A simple Google or Ask search will show that many others are having similar experiences.

Seniors and other people who may not be handy and tech-savvy, or who might not be able to climb on a roof to install or adjust an antenna for better digital reception, will need help from family members, friendly neighbors, or from local volunteer groups before Feb. 17, 2009 rolls around.

My own experience indicates that the digital conversion of free TV may not be as easy and simple as plugging a few wires in on the back of your TV. Given how much we all rely on TV today to keep connected with the modern world, and given the degree to which seniors depend on free TV for their news and entertainment, this will be an important national issue, community issue, and family issue in the days and weeks ahead. Please make sure your loved ones and elderly neighbors aren't cut off from critical news and information on February 17th. Help them order coupons and get their converter boxes set up today.

Resources:

www.dtv2009.gov - The \$40 coupon registration site also has a lot of good information.

<http://www.dtv.gov/consumercorner.html> - The Federal Communications Commission has a long page of frequently asked questions including information you can download in a variety of languages.

www.dtvanswers.com - The National Association of Broadcasters has an informative website with information and a countdown clock.

<http://www.consumerreports.org/cro/electronics-computers/tvs-services/digital-tv-converter/ratings/dtv-converter-boxes-ratings.htm> - Consumer Reports Review of DTV converter boxes

<http://www.antennaweb.org/aw/welcome.aspx> - Antenna Web - Antenna mapping and selection website is sponsored by the Consumer Electronics Association and the National Association of Broadcasters.

<http://www.lptvanswers.com/> - Low Power TV Stations and Translator Stations that will not be converting to digital.

<http://www.tvfool.com/> - Website for checking your address for free TV signals.

JimG offers his observations about the coming Digital TV (DTV) Conversion in this special report for 3GenFamily Blog.

You can read more about him and his writing at www.eternalstudent.com

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