Federal Communications Commission

The Digital Television Transition





1-888-CALL-FCC

1-888-TELL-FCC (tty)

E-mail: dtvinfo@fcc.gov

In February of 2009, television will undergo the biggest change since color was introduced in the 1950s.



What You Need To Know About DTV

The DTV Transition Deadline

Today, most full-power TV stations are broadcasting in two formats:

Digital and Analog

<u>February 2009</u>						
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

After <u>February 17, 2009</u>, all full-power stations will broadcast only in digital format.



Why Are Full-Power TV Broadcast Stations Switching to All-Digital?

- Analog spectrum re-allocated for Public Safety.
- Digital is more efficient, so broadcast stations can offer:
 - Better TV picture/sound
 - More programming options (multicasting)
- Analog spectrum auctioned for advanced services such as wireless broadband.













What Should I Do To Be Ready?

You have three choices:

1. Connect your analog TV to a digital-to-analog converter box. If you receive good quality reception on VHF channels (2-13) and UHF channels (14-51), your existing antenna should work for digital broadcasts.

OR

2. Buy a digital television (a TV with a built-in digital tuner). You do not need a HDTV. Plus, if you receive good quality reception on VHF and UHF channels, your existing antenna should work for digital broadcasts.

OR

- 3. Subscribe to a paid TV service (such as cable or satellite TV). If you receive your local broadcast stations through a paid TV provider, you are already prepared for the DTV transition.
 - Cable companies <u>are not</u> required to switch to digital. For voluntary business reasons, cable companies may switch some or all of their channels from analog to digital.
 - If you subscribe to a paid TV service and have an analog TV that <u>does not</u> receive local broadcast stations through your paid provider, you will need a digital-to-analog converter box to watch digital broadcasts.



Will My Analog TV Still Receive Free Over-The-Air Broadcasts?

Yes – Analog TVs will work with a digital-to-analog converter box.



- Digital-to-analog converter boxes are available at many electronics retail stores for \$40 \$70. This is a one-time cost.
- NTIA is administering a Coupon Program.
- U.S. households can request up to two \$40 coupons.
 - Households using a P.O. Box are eligible for coupons.
 - Nursing Homes Each resident is eligible for one coupon.





Are You Ready for February 17, 2009?





Apply TODAY for your coupon, which will help you purchase a government certified converter box. Coupons are available on a first come, first served basis. To apply, go to www.DTV2009.gov, call 1-888-DTV-2009 (1-888-388-2009), mail to PO Box 2000, Portland, OR 97208 or fax 1-877-DTV-4ME2 (1-877-388-4632).



Buy your coupon-eligible converter box. COUPONS EXPIRE 90 days after they are mailed. Expired coupons cannot be reissued or replaced. A list of retailers will come in the envelope with your coupons.



Try your converter box as soon as you get it home. Hook-up your converter box to start watching digital television or to troubleshoot potential problems. The converter box instructions may include a toll free line for help setting up your box. If you experience poor reception, contact your local television station. For general information about the DTV transition, visit www.DTV.gov or call 1-888-CALL-FCC (voice) or 1-888-TELL-FCC (TTY).

Troubleshooting Tips for Digital-to-Analog Converter Boxes

1. Check Your Connections

- The cable from your antenna must be connected to the antenna input of your digital-to-analog converter box.
- The cable from the antenna output of your converter box must be connected to the antenna input of your analog TV.
- Plug in and turn on your components.
- Tune your analog TV to channel 3. You should see a set-up menu or picture displayed on your TV screen. If you do not see a set-up menu or picture, tune your TV to channel 4.
- If you still do not see a set-up menu or picture, recheck your connections.



Troubleshooting Tips for Digital-to-Analog Converter Boxes

2. Perform a Channel Scan

- Digital-to-analog converter boxes have a button on the remote control that is labeled "set-up" or "menu."
- Press that button to access the set-up menu. Using the directional arrow buttons on your remote, scroll to the option that allows you to perform a "channel scan."
- The channel scan will search for digital broadcast channels that are available in your area.
- Once the channel scan is complete, you will be able to tune to the digital channels received by your antenna.
- Perform a channel scan periodically, and after February 17, 2009, to check whether additional digital channels have become available.



Troubleshooting Tips for Digital-to-Analog Converter Boxes

3. Adjust Your Antenna

- Small adjustments to your antenna can make a big difference.
- While adjusting your antenna, it may be helpful to use the "signal strength meter" on your digital-to-analog converter box, which can be accessed through your remote control. <u>Perform another channel scan</u> <u>after you have adjusted your antenna</u>.
- 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.



DTV or **HDTV**

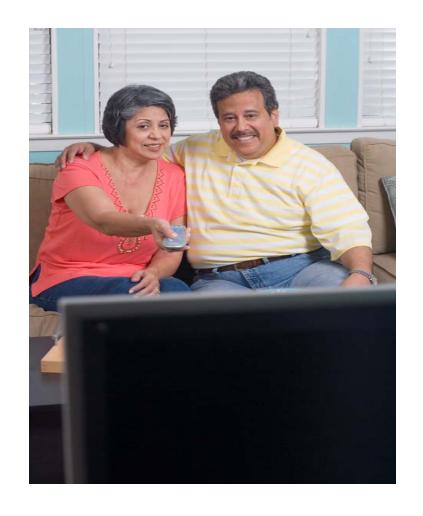
- Transition is from analog to digital, <u>not</u> from analog to high definition.
 - High definition TV (HDTV) is a form of DTV that provides higher resolution pictures and multichannel audio.
- DTV and HDTV sets are not the same.
 - DTV includes standard definition (SDTV) and high definition (HDTV) formats.
 - Not necessary to purchase HDTVs in order to view DTV.
 - SDTVs are comparably priced to analog TVs.
- Can view HDTV broadcasts on SDTVs and analog TVs connected to digital-to-analog converter boxes, just not in full HDTV quality.



Low Power Television (LPTV)

Most U.S. households can receive programming from full-power broadcast TV stations. These stations must only broadcast in digital after the February 17, 2009 deadline.

However, some stations are "low-power," "Class A," or "translator" TV stations. Currently, these types of stations have no deadline for converting to all digital broadcasting. Some have already transitioned to digital, and others will transition sometime after February 17, 2009.





Digital-to-Analog Converter Boxes and Analog Broadcasts

- Full-power broadcast stations can continue to broadcast in analog until February 17, 2009. Also, low-power, Class A, and translator TV stations can continue to broadcast in analog <u>after</u> February 17, 2009.
- Consumers who want to view programming from stations that continue to broadcast in analog should look for digital-to-analog converter boxes that have "analog passthrough" capability.
- Consumers who do not have analog pass-through boxes can use an "A/B switch" and/or a "signal splitter" and some extra cable to route the analog signals around the converter box in order to watch analog channels.



If You Subscribe to Cable Service

If you subscribe to cable, you are already prepared for the DTV transition. However, if you watch local broadcast stations on an analog TV that is not connected to your cable service, you must either:

- Connect the set to a digital-to-analog converter box, or
- Connect the set to your cable service.



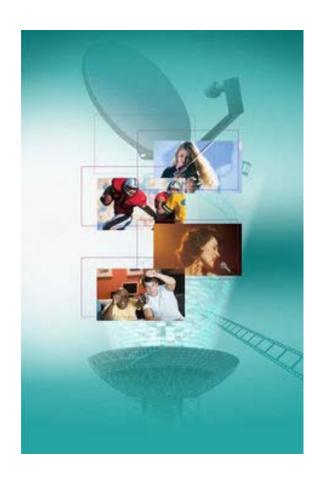
It is important to note that cable companies <u>are not</u> required to switch their systems to digital. If your cable company makes the voluntary business decision to switch some or all of its channels to digital, it may notify you that you need to get "digital cable" equipment. This is not the same as a digital-to-analog converter box. Talk to your provider about equipment options that may be available to you.



If You Subscribe to Satellite TV Service

If you subscribe to satellite TV service ("Direct Broadcast Satellite" or "DBS") and your TVs receive local broadcast stations through your satellite dish, these TVs are already prepared for the DTV transition.

If you do not receive local broadcast stations through your satellite dish, you are likely receiving them with a broadcast antenna, such as rabbit ears or a rooftop antenna. In this case, you will need a digital-to-analog converter box to watch local digital broadcast stations on an analog TV.





DTV Closed Captioning

- Closed captioning displays the audio portion of television programming as text on the TV screen.
- FCC rules require that:
 - DTV receivers include closed captioning display capability.
 - Digital-to-analog converter boxes pass through closed captions.
- Converter box captioning capabilities.
 - All converter boxes receive closed caption signals and can pass them through to your TV automatically.
 - Some converter boxes will generate captions through the converter box itself, enabling viewers to change the way captions appear on the TV, such as caption size, font (style), caption color, background color, and opacity.
- More information is available at www.dtv.gov.



DTV Transition Quiz





Question I: After what date will full-power broadcast stations stop broadcasting in analog?

- A. January 1, 2009
- B. March 15, 2010
- C. February 17, 2009
- D. April 31, 2010



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- A. January 1, 2009
- B. March 15, 2010
- C. February 17, 2009
- D. April 31, 2010

Answer: C. February 17, 2009



Question 2: Digital broadcasting provides:

- A. Additional spectrum for Public Safety communications
- B. Opportunity for better quality TV picture and sound
- C. Opportunity for more programming choices
- D. All of the above



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- A. Additional spectrum for Public Safety communications
- B. Opportunity for better quality TV picture and sound
- C. Opportunity for more programming choices
- D. All of the above

Answer: **D. All of the above**



Question 3: To be ready for the DTV transition, your options are:

- A. Connect your analog TV to a digital-to-analog converter box
- B. Purchase a TV with a built-in digital tuner
- C. Subscribe to a paid service like cable or satellite TV
- D. Any of the above



Question 3: To be ready for the DTV transition, your options are:

- A. Connect your analog TV to a digital-to-analog converter box
- B. Purchase a TV with a built-in digital tuner
- C. Subscribe to a paid service like cable or satellite TV
- D. Any of the above

Answer: **D. Any of the above**



Question 4: After February 17, 2009, you will have to discard all analog TVs.

A. True

B. False



Question 4: After February 17, 2009, you will have to discard all analog TVs.

A. True

B. False

Answer: B. False



Question 5: Each U.S. household may request up to two digital-to-analog converter box coupons from NTIA. These coupons are each worth:

- A. \$20
- B. \$40
- C. \$50
- D. \$80



Question 5: Each U.S. household may request up to two digital-to-analog converter box coupons from NTIA. These coupons are each worth:

- A. \$20
- B. \$40
- C. \$50
- D. \$80

Answer: **B. \$40**



Question 6: To apply for digital-to-analog converter box coupons, you can:

- A. Visit www.dtv2009.gov
- B. Call 1-888-388-2009
- C. Apply by mail at P.O. Box 2000, Portland, OR 97208-2000
- D. Apply by fax at 1-877-388-4632
- E. Any of the above



Question 6: To apply for digital-to-analog converter box coupons, you can:

- A. Visit <u>www.dtv2009.gov</u>
- B. Call 1-888-388-2009
- C. Apply by mail at P.O. Box 2000, Portland, OR 97208-2000
- D. Apply by fax at 1-877-388-4632
- E. Any of the above

Answer: E. Any of the above



Question 7: A digital-to-analog converter box will allow an analog TV to display digital broadcasts.

A. True

B. False



Question 7: A digital-to-analog converter box will allow an analog TV to display digital broadcasts.

A. True

B. False

Answer: A. True



Question 8: You must wait until February 17, 2009 to hook up your digital-to-analog converter box.

A. True

B. False



Question 8: You must wait until February 17, 2009 to hook up your digital-to-analog converter box.

A. True

B. False

Answer: B. False



Question 9: If you are interested in buying a new TV, you must buy an HDTV in order to watch digital broadcasts:

A. True

B. False



Question 9: If you are interested in buying a new TV, you must buy an HDTV in order to watch digital broadcasts:

A. True

B. False

Answer: B. False



Question 10: If your current antenna provides good quality reception on VHF (2-13) and UHF (14-51) channels with your analog TV, it should work for digital broadcasts.

A. True

B. False



Question 10: If your current antenna provides good quality reception on VHF (2-13) and UHF (14-51) channels with your analog TV, it should work for digital broadcasts.

A. True

B. False

Answer: A. True



For More Information

- 1. Visit www.dtv.gov
- Frequently Asked Questions
- Fact Sheets
- Converter Box Set-Up Guides
- Troubleshooting Guide
- Converter Box Features Guide
- DTV Outreach Toolkit
- Speakers Bureau
- Other Resources
- 2. Call Toll Free
- 1-888-CALL-FCC (Voice)
- 1-888-TELL-FCC (TTY)
- 3. E-mail dtvinfo@fcc.gov.



