

cooperative
CTV Time

August 2009
Vol. 11 No. 1

Tune in to your CTV news & programs update



**CTV going
digital!**

**Digital makeover
underway...Page 3**

**Go with converter
box or digital TV?
...Page 4**

**Digital channel
listing...Page 5**

The dawn of digital CTV signals is on the horizon



Dave Sunderman
CTV General Manager
daves@benco.org

The long awaited (and expected) digital conversion took place June 12 for TV broadcasters. This change for the better has many advantages:

high definition signals, better reception and subchannels, which gives viewers more options when they watch TV.

CTV was not required to switch to a digital signal on June 12. That date was meant for “broadcasters” only. CTV is a “rebroadcaster.” Hence, CTV viewers continued to receive their analog channels. However, that is about to change...

CTV’s Board of Directors approved switching its UHF channels to digital signals at its May board meeting. If all goes as planned, CTV subscribers that do not have a converter box on their analog TVs will lose their CTV channels around mid-August or September. Watch your mail, scroller on the TV, local media and your electric co-op newsletter for news on the conversion date).

Originally, CTV planned a slow digital transition over a period of years. The high cost of converting was one reason for this, with the digital conversion of CTV’s system projected to cost around \$1 million. Then an unexpected development occurred. Government funding generated by the Federal Communica-

tion Commission’s auction of channel frequencies was earmarked to help rebroadcasters like CTV convert to digital. This funding will cut CTV’s conversion costs in half. The funds are available on a first-come, first-served basis, which means speed is essential. Hence, CTV changed its mind about a slow transition and aims to perform a quick conversion by the end of summer.

Presently, CTV offers the three main networks (KARE 11, FOX 9 and KSTP 5) in high-definition digital (for those with digital TVs or analog TVs with a converter boxes). The new high-definition channels coming in mid-August or September are: KSTC 45, KTCA 2 TPT, WFTC 29, KMWB 23, KEYC 12 CBS 12.1, KEYC FOX 12.2, and WCCO 4 CBS. CTV viewers will need to rescan their digital

TVs or converter boxes once our digital conversion occurs. The six scrambled UHF channels offered to CTV Plus viewers from the Godahl Tower will continue broadcasting in analog.

CTV is excited about this change and looks forward to bringing its members into the dawn of the digital era with the best low-cost, basic TV service available. ☐

Conversion Schedule

Phase 1 — upgrading the microwave system that links UHF towers. This was completed July 24.

Phase 2 — Frost Tower conversion, which started July 27.

Phase 3 — Jackson Tower conversion (projected to start August 3).

Phase 4 — converting the Godahl Tower will start August 10. Finally, three CTV Plus channel numbers will change (finalized later).

Cooperative CTV Time

This publication focuses on CTV news and programs to inform CTV subscribers about their TV cooperative.

Official biannual newsletter published by Cooperative Television Association of Southern Minnesota (CTV), c/o Federated, P.O. Box 69, Jackson, MN 56143-0069.

Telephone numbers & addresses of four rural electric cooperatives

Federated	Brown County Rural	South Central	BENCO
Rural Electric	Electrical Association	Electric Association	Electric
PO Box 69	PO Box 529	PO Box 150	PO Box 8
Jackson, MN	Sleepy Eye, MN	St. James, MN	Mankato, MN
56143-0069	56085-0529	56081-0150	56002-0008
507-847-3520	507-794-3331	507-375-3164	507-387-7963

Bulk rate: U.S. postage paid at Slayton, MN 56172. Permit number 22

POSTMASTER: Send forwarding and address changes to:

CTV Time, c/o Federated Rural Electric, PO Box 69, Jackson MN 56143-0069.

Dave Sunderman, General Mgr.   Steve Ruthenbeck, Editor
Andrea Christoffer, CCC, Managing Editor • Printed by Livewire Printing Co., Jackson.

CTV's digital makeover

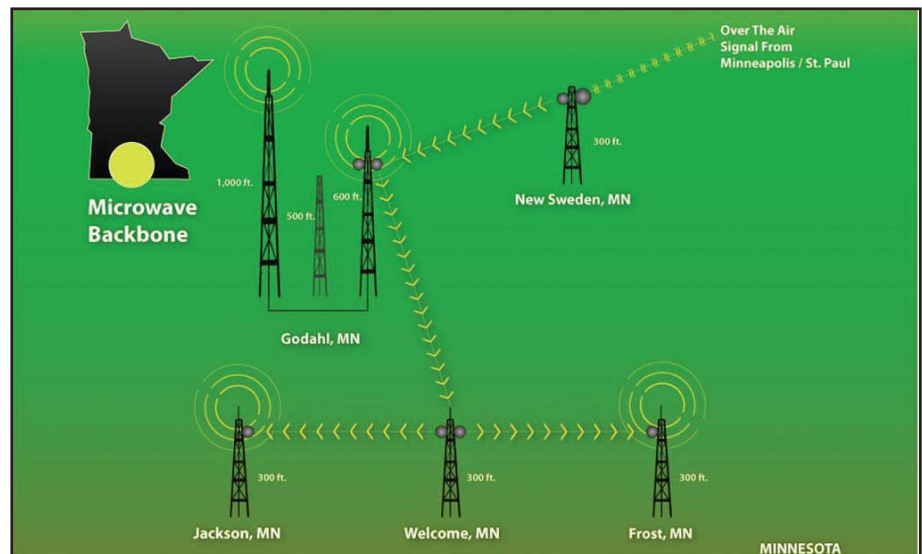
Most people have seen the TV show *Extreme Makeover: The Home Edition*. Each week the stars of the show visit a home that needs renovation and give it a makeover, remodeling it into a dream house.

CTV's broadcasting system is about to get a similar makeover, going from an analog to a digital system. What may surprise many is that it shouldn't be as complicated as remodeling a home. No walls need to be knocked down. No additions need to be built. No need for paint, wallpaper or new windows exists. For CTV it's simply a matter of replacing our transmitters and upgrading our microwave tower systems.

"CTV has been experimenting with digital signals for four years," explained Dave Sunderman, CTV's general manager. "We knew this day was coming so we've learned a lot about the process in the meantime. Plus, we've built our system with this transition in mind."

A microwave backbone was installed from the New Sweden Tower (where CTV receives its original signals) to the Godahl Tower and then on to the Jackson and Frost Towers. The backbone uses a digital signal, which was converted to analog when it went off the towers. Now that step can be eliminated. Plus, making some of the backbone digital gave CTV technicians a chance to fine tune things since digital signals can be more sensitive than analog signals.

CTV also installed monitoring equipment at its tower sites. In the past CTV relied on individuals to report reception problems, which is still helpful. Knowing the time when signals go off is important for



troubleshooting. This monitoring equipment gives CTV this ability.

With this foundation laid CTV is now ready to stop transmitting analog signals and replace them with digital signals.

"Basically, all we have to do is replace our analog transmitters with digital transmitters," Sunderman said. "Everything else, including the antennas, can stay the same. Right now, the equipment is ordered. The Frost Tower conversion started the last week of July. Next up is the Jackson Tower."

Sunderman said some downtime is to be expected during the transition. "We will see how the process goes once the equipment arrives," he said. "Odds are we won't do every tower at once. We will do them one at a time since some sites will be more time-consuming than others. Some viewers may lose signals for a day or more. Others might lose them for only an hour or two. We ask viewers to be patient until we get the digital signal fully up and running."

Once the conversion takes place, any CTV viewer without a converter box on their analog TV will no longer receive any channels. If you have a digital TV or an analog TV with a converter box, you will need to do a channel rescan once CTV has switched to a digital signal. This will save all of the new channels into your TV's memory. CTV viewers do not need to worry about changing their existing antenna.

Once CTV's digital system is fully operational, most viewers should see a great reduction in reception problems. However, atmospheric conditions still affect the digital signal. The humidity and temperature changes that occur July-October allow digital signals to float beyond their normal range, which creates interference. Ideally, the local signal should be stronger. The TV then locks on to that channel and ignores the interfering signals. However, low-powered stations like CTV make this a little more challenging. CTV will continue to monitor and fine tune the signal to ensure high reliability for viewers. □

CTV's Board of Directors and contact information

BENCO Electric, Mankato

- Dave Sunderman, CTV General Manager, Mankato
- Wade Hensel, General Manager, Mankato

Directors:

- Blake Meshke, Lake Crystal
- Duane Ehrich, Blue Earth
- Martin Imlay, President, Lake Crystal

Brown County Rural Electrical Association, Sleepy Eye

- Wade Hensel, General Manager, Sleepy Eye

Directors:

- Allen Hanson, Treasurer, Hanska
- Jeffrey Pelzel, Sleepy Eye
- Jim Hanson, Vice President, Comfrey

Federated Rural Electric, Jackson

- Richard Burud, General Manager, Jackson

Directors:

- Kurt Hagen, Sherburn
- James Oltman, Secretary, Granada
- Lyle Fisher, Jackson

South Central Electric, St. James

- Tom Malone, General Manager, St. James

Directors:

- Wilbert Sieg, St. James
- Kenneth Hanson, St. James
- Richard Johnson, Madelia

Attorney

- Jared Peterson, New Ulm

Have questions? Call or e-mail the rural electric co-op nearest you

- Jackson 507-847-3520 or info@federatedrea.coop
- Sleepy Eye 507-794-3331 or bcrea@sleepyeyetel.net
- St. James 507-375-3164 or sce@southcentralelectric.com
- Mankato 507-387-7963 or daves@benco.org
- CTV Plus 1-888-288-7587

Convertor box or digital TV?

What is the best option for CTV viewers?



Conversion boxes (on top of TV below) are the most low-cost option to prepare for the digital transition.



Many CTV viewers wonder if they should get a converter box or a digital TV. (A converter box makes your analog TV compatible with digital signals. Simply plug your antenna into it and then plug the converter box into your TV. See diagram on Page 7 for more details).

No easy answer exists. A variety of factors apply.

Price is one thing to consider. A converter box costs approximately \$60. A digital TV costs \$150-\$200. A high-definition digital TV costs \$200 to \$2,000 or more, depending on size.

Simplicity is another factor. A converter box is another item to hook up and another remote to operate. Perhaps a splitter or amplifier is also needed. Getting a new digital TV keeps things simple and eliminates clutter.

How much TV do you watch? If you prefer to read books or pursue other leisure activities, a converter box may suffice.

How important is watching TV? If it is a big part of your life, you will probably get your money's worth with a new digital TV. And if it's really important, the extra cost for a high definition TV may be worth it. If you want to purchase an HDTV, go by this rule: at a minimum, an HDTV television must be able to display images of 1080i or 720p resolution. A digital TV that doesn't meet this rating does not deliver true HDTV.

Maybe a combination plan is best for you. If you have a living room TV that you use for the bulk of your viewing, a new digital TV may be the best option for that room. Meanwhile, you could put a converter box on that secondary TV in the kitchen or bedroom. Also, bear in mind that you will need a converter box for each TV if you have more than one secondary TV. □

What's on where?

Check out CTV's new digital channel listing

Until the conversion is completed, CTV viewers can receive high-definition (720i or 1080i) digital signals of four major networks (five at Godahl): CBS, ABC, NBC and Minneapolis FOX. CTV also offers public TV at Godahl. Most of CTV's viewing public receives CBS through KEYC Mankato (12.1) and FOX (12.2), which is their subchannel.

ABC also offers 24-hour rebroadcast news on subchannel 5.2.

NBC's 11.5 is their 24-hour weather channel. Digital signals allow these



subchannels, which may be an additional one, two, three or four channels.

Other channels CTV viewers receive depend on location. Some viewers

pick up channels from other sources. Many are picking up digital channels from Austin, MN and Sioux Falls, SD. These channel options are unique to every location.

Note: Low channel numbers are not VHF signals. They are still UHF. They might come into the TV on channel 32, but the TV or converter box has a computer inside that analyzes the frequency's code and assigns it to the proper channel, which might be 2.1, 9.1 or 5.1. ☐

Godahl Tower

Jackson Tower

Frost Tower

HD stands for "high definition." SD stands for "standard definition."

2.1 TPT HD
 2.2 TPT MN Channel
 4.1 WCCO 4 — Minneapolis CBS
 5.1 ABC KSTP HD
 5.2 24-hour news KSTP
 9.1 FOX KMSP HD
 9.2 FOX SD
 11.4 NBC KARE HD
 11.5 KARE 24-hour weather
 12.4 CBS KEYCHD (late August)
 12.5 FOX KEYC (late August)
 23.1 WUCW 23 — Minneapolis
 23.2 WUCW 23 SD
 29.1 WFTC 29 — Minneapolis UPN
 29.2 WFTC 29 SD
 40 LBN — Family Network (analog and only at Godahl)
 45.1 KSTC 45 — Minneapolis

2.1 TPT HD
 2.2 TPT MN Channel
 4.1 WCCO 4 — Minneapolis CBS
 5.1 ABC KSTP HD
 5.2 24-hour news KSTP
 9.1 FOX KMSP HD
 9.2 FOX SD
 11.4 NBC KARE HD
 11.5 KARE 24-hour weather
 12.4 CBS KEYC HD (late August)
 12.5 FOX KEYC (late August)
 23.1 WUCW 23 — Minneapolis
 23.2 WUCW 23 SD
 29.1 WFTC 29 — Minneapolis UPN
 29.2 WFTC 29 SD
 45.1 KSTC 45 — Minneapolis

2.1 TPT HD
 2.2 TPT MN Channel
 4.1 WCCO 4 — Minneapolis CBS
 5.1 ABC KSTP HD
 5.2 24-hour news KSTP
 9.1 FOX KMSP HD
 9.2 FOX SD
 11.4 NBC KARE HD
 11.5 KARE 24-hour weather
 12.4 CBS KEYC HD (late August)
 12.5 FOX KEYC (late August)
 23.1 WUCW 23 — Minneapolis
 23.2 WUCW 23 SD
 29.1 WFTC 29 — Minneapolis UPN
 29.2 WFTC 29 SD
 45.1 KSTC 45 — Minneapolis

The digital transition and CTV Plus

How will the digital transition affect CTV Plus?

CTV Plus offers more premium channels on the Godahl tower. For right now CTV Plus will operate as it has been. It will continue to be analog.

One of the problems with converting CTV Plus to digital is that in order to send premium channels, you need to scramble them and have control over who can access them. The other problem is cost. For example, with ESPN CTV must pay the network so much per viewer, in addition to scrambling costs. The problem with going

digital is vendors currently do not make an affordable product to scramble the digital signal.

Technically, it is not a problem. The problem is demand. Presently, not enough need exists for it to make it a cost-effective market, but as more rebroadcasters like CTV switch over to digital, electronic manufacturers will pick it up and go with it.

Hence, CTV Plus can't change until the equipment is available. It is just a matter of having a large enough order to make it worthwhile for the electronic companies. ☐

CTV costs viewers only pennies a day!



17 cents a day goes a long way for CTV viewers.

Enjoy nine Minnesota TV stations, plus substations, that keep rural residents informed about Min-

nesota news, politics and events.

CTV viewers have three payment options. First, rural electric co-op customers can have \$5 added to their monthly electric bills. Second, if you're not a rural electric subscriber, you can make just one annual payment of \$60. Annuals will be billed each year at the same time for \$60. Third, if you live here seasonally, pay a prorated amount of \$30. Use the coupon on Page 8 to inform CTV of your payment preference.

CTV needs your help to stay up, running and improving. CTV is a nonprofit enterprise. On behalf of the CTV Board, thank you for your payments. It's important for all viewers to continue to support this service. ☐

Thanks for your support!



Without subscriber support, CTV would not be possible. Thanks for being part of the team!

CTV Plus = more entertainment



CTV Plus provides seven popular channels at a low monthly cost. Enjoy Fox Sports North, the Discovery Channel or Showtime. (See

below for the complete list). This television service is only available on CTV's Godahl (St. James) UHF tower, which has a 45-mile radius coverage area. CTV Plus subscribers use their UHF antenna and a CTV Plus box (reminder: no digital conversion box is needed). No deposit is required. If the viewer owns a second television and wants to watch different channels on it, a second CTV Plus box costs \$3.95 a month. Call toll free 1-888-CTV-Plus (1-888-288-7587) or e-mail billing@federatedrea.coop.

Godahl Tower Only

Analog Basic Package (\$12.25 per month)

14 Fox Sports North - Regional sports (Twins & Timberwolves).

16 Discovery Channel - Nature, science & education

26 WTBS - Atlanta superstation; western & action movies, Atlanta Braves & Hawks

35 TNT - NBA games, classic and contemporary TV shows and movies

Analog Basic Plus (\$16.95 per month)

All four Basic channels, plus:

21 CNN - 24-hour news channel

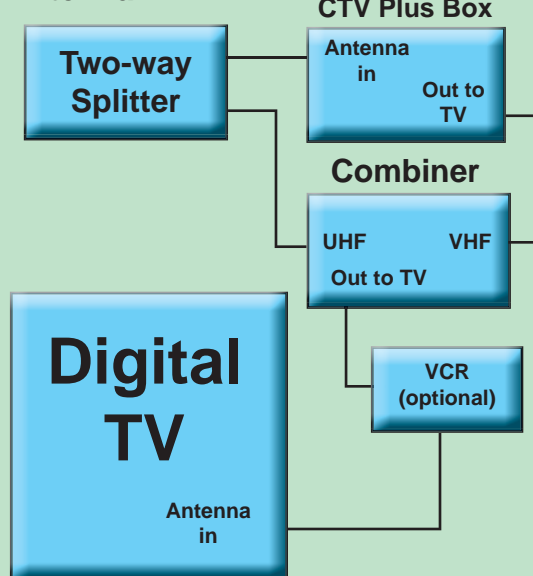
24 ESPN - National sports channel

Analog Movie Channel (\$10.95 per month)

48 Showtime - Commercial free, uncut movies ☐

“CTV Plus” hook up instructions for new DTV

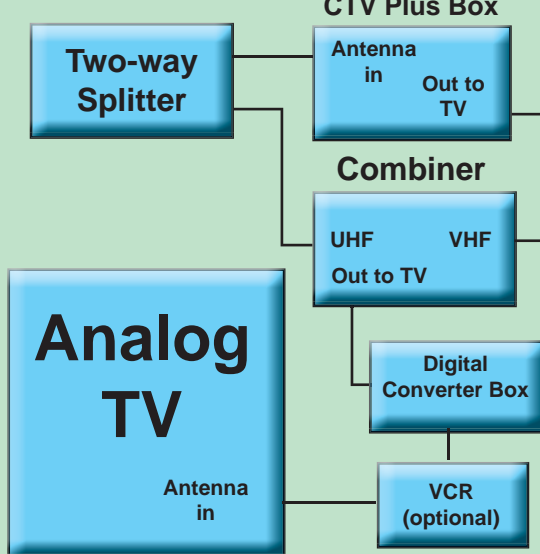
Antenna in...



A combiner looks similar to a splitter, but is different. It has a UHF and VHF jack and then a third jack that is labeled “out” or “line.” Cost is approximately \$12. Important note: a “diplexer” is not the same as a “combiner.” Some combiners are sold as a combination “combiner/diplexer.” These will not work.

“CTV Plus” hook up instructions for old analog TV with converter box

Antenna in...

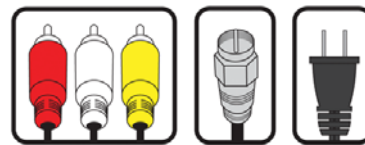


Converter box hook up

This guide will help you understand what a digital television converter box looks like and how easy it is to install and use. For complete instructions on a specific model of converter box, please refer to the literature included with your converter box.

STEP 1 - UNPACK

A) In the box you will find an instruction manual, a coaxial cable, a remote control with batteries and the set-top converter box. A power cable, power supply, audio/video cables and cable adaptors may be included as well.



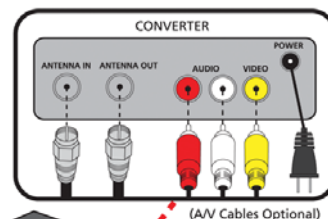
B) Begin by placing the converter near the TV so it will be visible from the front.

STEP 2 - CONNECT

A) Disconnect your existing antenna by pulling or unscrewing the coaxial cable from the “antenna in” jack on the back of your TV.

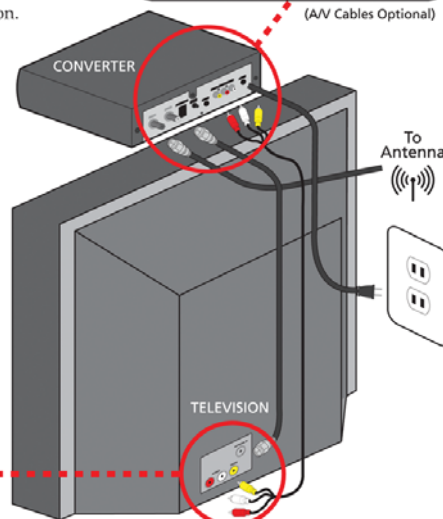
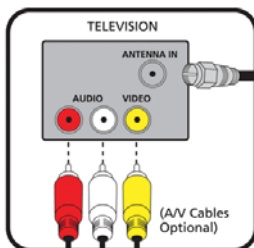
B) Connect the antenna cable to the “antenna in” jack on the back of the converter box.

C) Use the supplied coaxial cable to connect the “antenna out” jack on the converter to the “antenna in” on the back of the television.



NOTE: The red, white and yellow auxiliary outputs can be used as an alternative to the coaxial cable if your set is equipped with corresponding inputs, or to connect a video cassette recorder (VCR).

D) Next, plug in the converter box power cable and install the supplied batteries in the remote control.



NOTE: If your antenna connects to your set through a thin, flat wire hooked to a pair of screw terminals instead of the threaded coaxial cable input, you will need to use an inexpensive antenna adaptor, available from your local electronics retailer.



STEP 3 - SCAN FOR CHANNELS

A) Turn on the television and tune it to channel three. (Note: If channel three is in use in your area, consult the converter box manual for instructions on how to use channel four instead).

B) Point the remote toward the converter box and press the “power” button. A small light on the front of the box will indicate that the box is getting power and has turned on.

C) The first time the unit is powered up, it will either prompt you to scan for local channels or it will begin scanning for channels automatically. This could take several minutes but will only happen once. Once the channel scanning process is complete, your box will be ready to use.

STEP 4 - ENJOY!

A) Press the “channel up” button on the converter box remote to explore your new digital stations. Do not be surprised if you suddenly receive many additional channels.

B) If any of your desired stations are missing, refer to the converter’s manual for instructions on how to add additional channels.

C) Then, just sit back and enjoy the added features and superior quality of digital television!

For more information on the digital transition, visit DigitalTips.org and DTVtransition.org.
— Graphic courtesy of Consumer Electronics Association

Help CTV be all it can be

Become a CTV subscriber



Help build CTV up by being a subscriber. Operating as a cooperative, CTV is dependent on members to bring the best possible service to its customers. The more members CTV has, the more economical it is for everyone.

What's the best way to receive digital TV? Cable? No. Dish? No. Over-the-air? Yes.

That means CTV provides viewers with the best possible digital TV service available. As prices for most services go up, the cost of CTV has remained about the same, which is remarkable considering the premier product CTV will be providing once it converts to digital.

CTV is a cooperative. That means it doesn't operate to make excessive profits from its customers. It operates to bring the best possible service to its customers at the lowest possible cost. The more customers it has, the better the service as each member does their part to contribute to the whole.

I receive CTV and want to pay my fair share!

_____ Bill me \$5 monthly on my electric bill. I'm a member of (circle one): Brown County Rural Electric, Sleepy Eye; Federated Rural Electric, Jackson; BENCO Electric, Mankato; or South Central Electric, St. James.

_____ I am not a member of one of the Minnesota rural electric co-ops. Enclosed is my annual payment of \$60 for one year's service.

_____ I have a seasonal residence at _____ (location). I am interested in paying a prorated amount of \$30 a year.



Name _____

Address _____

City/state/zip _____

Phone _____

Cooperative location or customer # (found on the mailing label) _____

Once coupon is completed, mail to your electric cooperative (address listed on page 2) or send along with your electric bill.

If you are already a subscriber, thanks for supporting CTV, especially during this digital transition. Some outages are expected, but the end product is going to be much better and the reasonable prices will continue. CTV offers basic TV service at a bargain price compared to cable and satellite companies. For the major networks, over-the-air digital signals are the best you can get.

Yet, providing this service is not without cost; buying new channels and equipment and securing licenses is an investment. Fortunately, CTV has been positioning itself for the last 10 years for the digital transition. With member support we can go even further. Please fill out the coupon below if you are not a CTV subscriber. Mail it to your local electric cooperative or simply send it in with your electric bill.