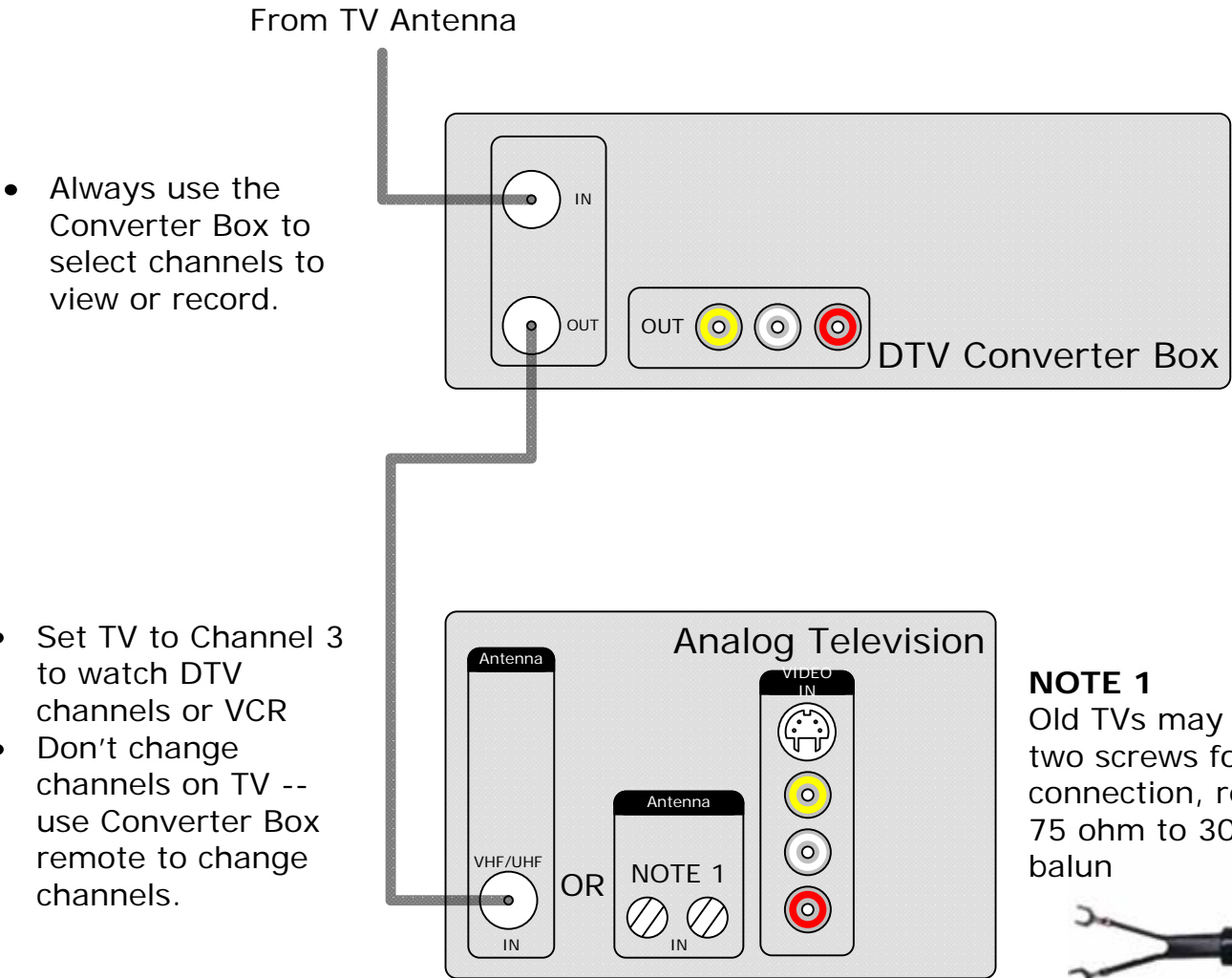


Thank you for contacting KCTS 9 regarding the digital television transition (DTV). We have compiled the following materials to assist you with your DTV installation. Each topic below is covered in the attached PDF:

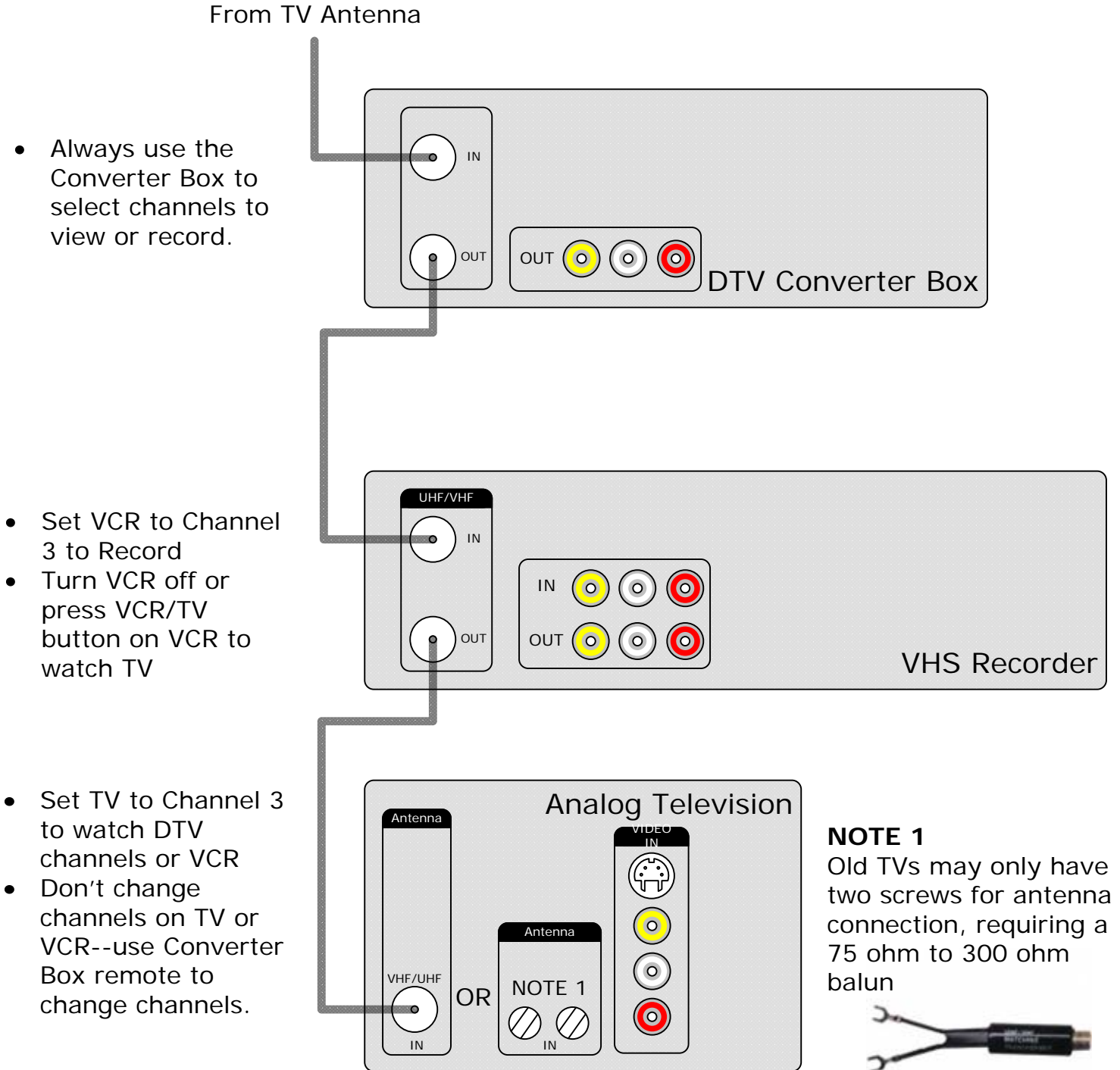
- DTV box hook-up
- DTV troubleshooting flowchart
- KCTS Coverage Map
- Scanning your digital box
- Antenna information
- Aspect ratio issues
- DTV drop-in centers
- DTV installation assistance (in home)
- DTV help center for deaf, hard of hearing and deaf-blind
- FCC Contact information
- Cable and satellite company telephone numbers

## DTV Converter Box Connection using RF (screw-on) cables



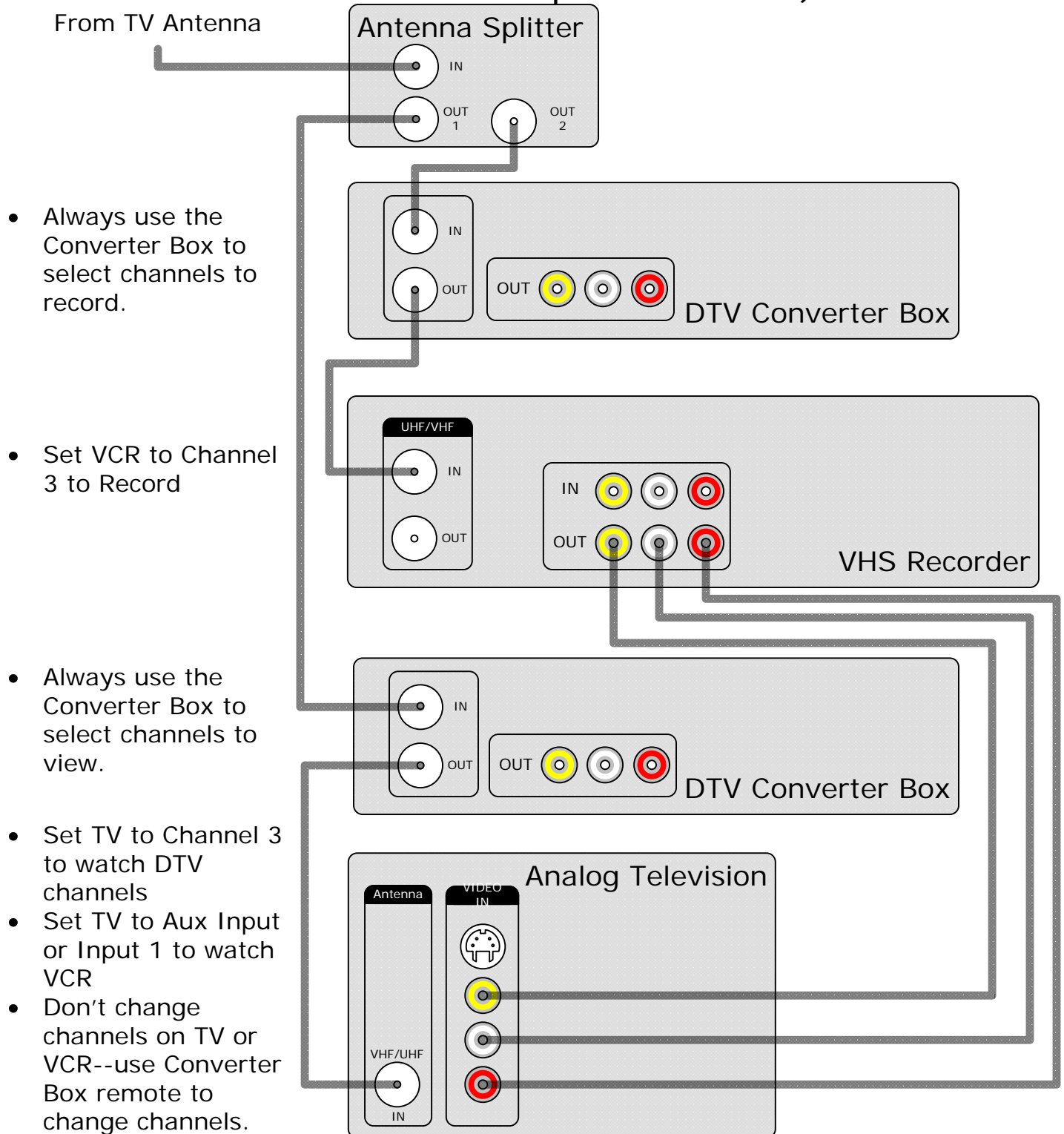
This is a basic setup diagram for connecting a DTV Converter Box and TV. Setup may be slightly different based on your equipment.

## DTV Converter Box with VCR Connection using RF (screw-on) cables



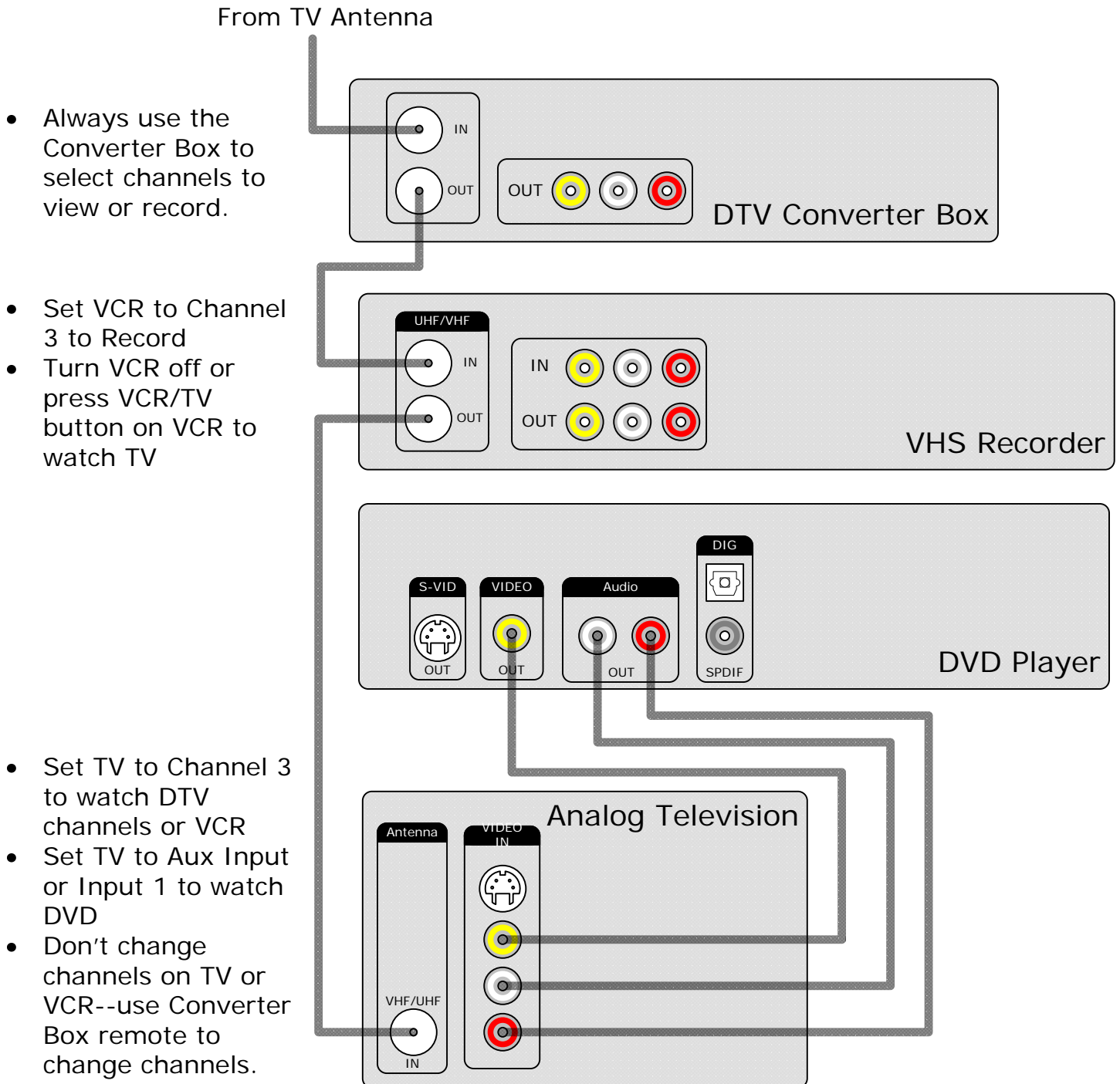
This is a basic setup diagram for connecting a DTV Converter Box, VCR and TV. Setup may be slightly different based on your equipment. With this setup you will not be able to watch one channel and record a different program. In order to do that you will need two DTV converter boxes.

## Two DTV Converter Boxes with VCR Connection (uses both RF and component cables)



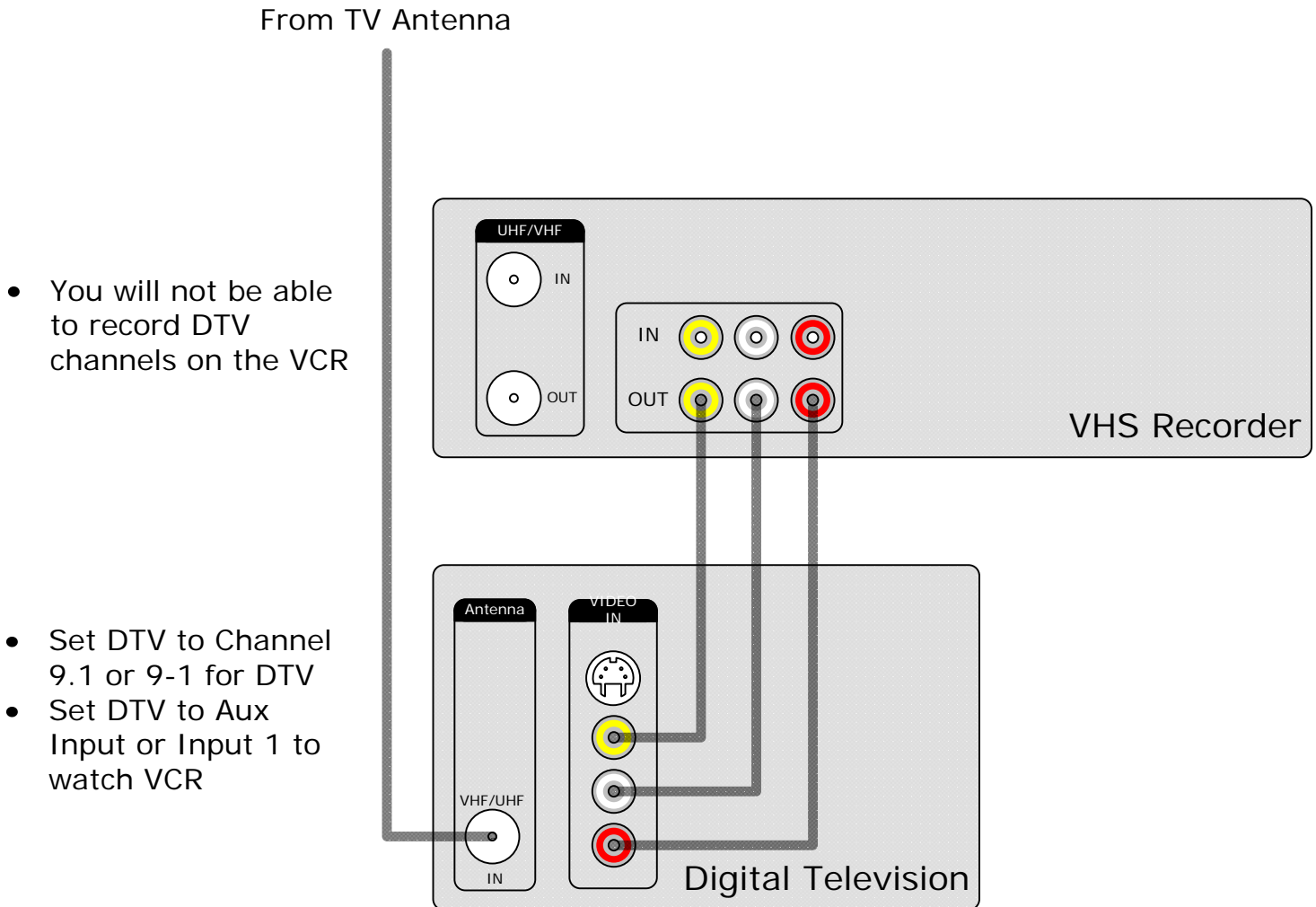
This is a basic setup diagram for connecting two DTV Converter Boxes to a VCR and TV in order to view and record from two different channels at once. If the DTV converter boxes are from the same brand, be aware that one remote will control both converter boxes. You should orient the boxes in a way that the box for VCR recordings doesn't receive the remote control commands. Setup may be slightly different based on your equipment.

## DTV Converter Box with VCR & DVD Connection (uses both RF and component cables)



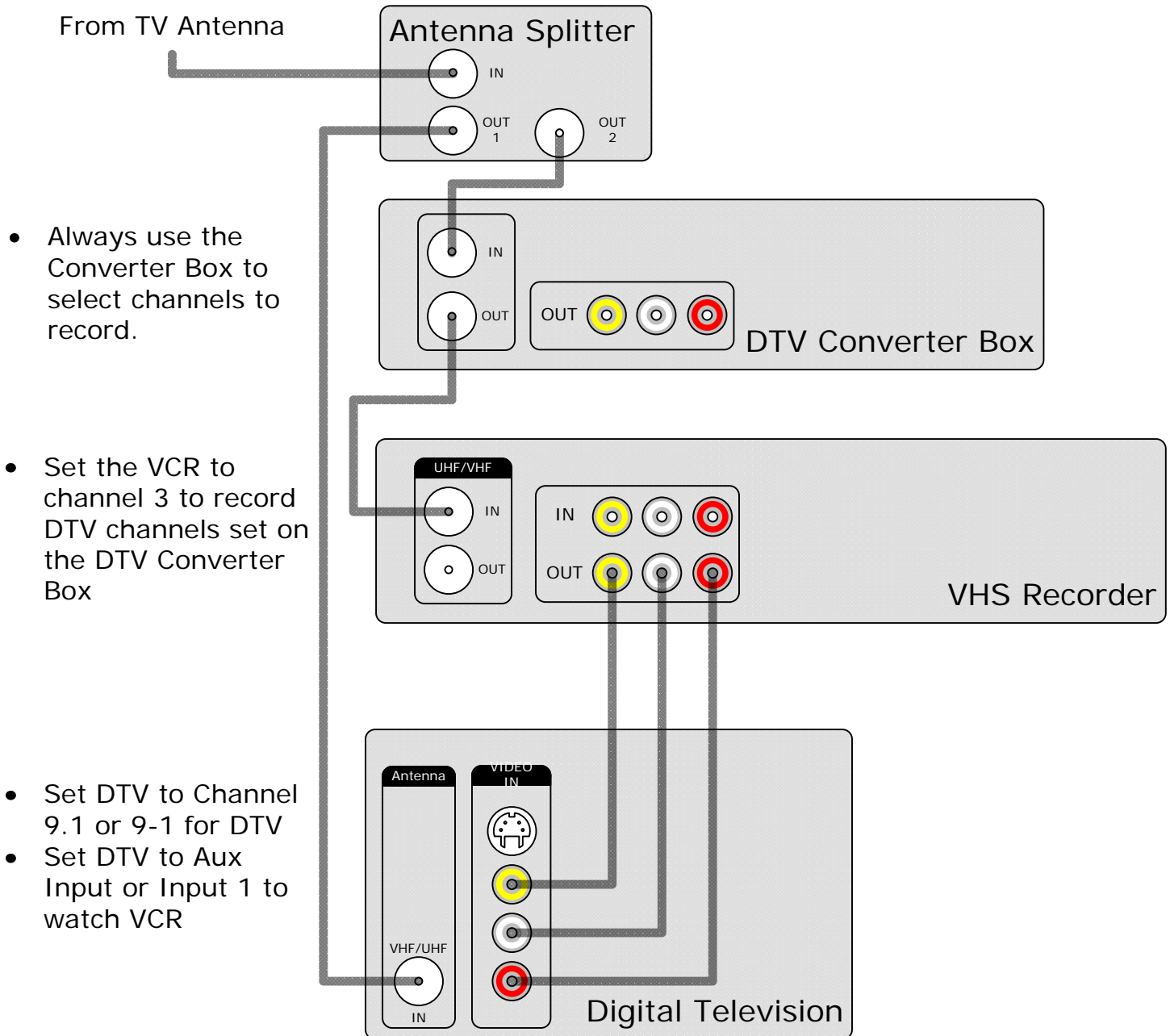
This is a basic setup diagram for connecting a DTV Converter Box, VCR, DVD Player and TV. Setup may be slightly different based on your equipment. With this setup, you can watch live television, the program you are recording on the VCR, or a DVD. To view live TV on one channel while recording a program on a different channel, you will need two DTV converter boxes.

## Digital Television with VCR Connection using RF (screw-on) and Component Video & Audio (push-on) cables



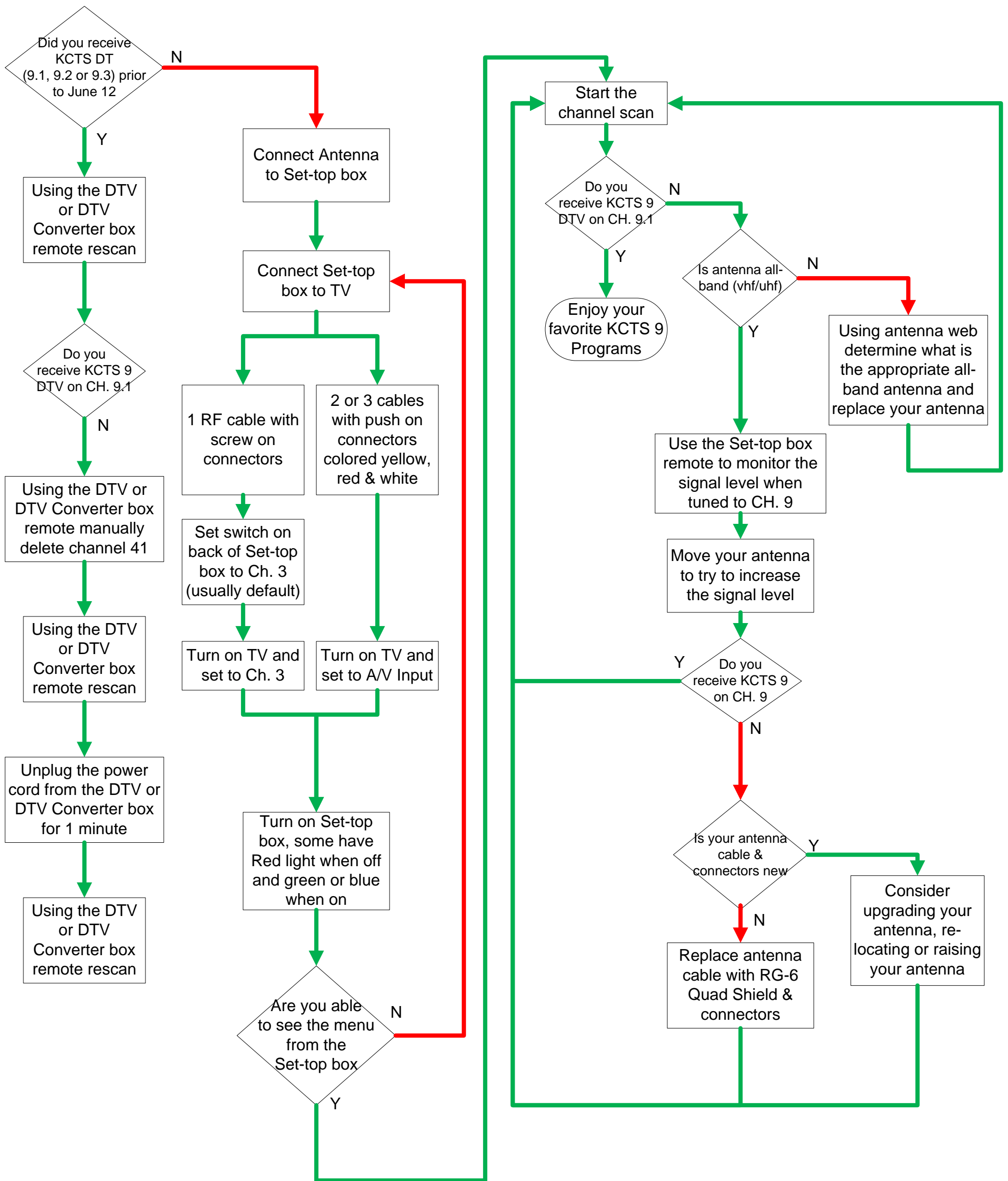
This is a basic setup diagram for connecting a VCR and Digital TV using RF (screw-on) and Component (push-on) cables. This is not for connecting a DTV converter box. Setup may be slightly different based on your equipment. With this setup you will not be able to record DTV channels on VCR. The VCR is only for watching tapes.

## Digital Television, VCR and DTV Converter Box Connection using RF (screw-on) and Component Video & Audio (push-on) cables



This is a basic setup diagram for connecting a Digital TV, VCR and a DTV Converter Box using RF and component cables, which allows you to watch DTV channels or record DTV channels with the VCR. Setup may be slightly different based on your equipment.

# KCTS 9 DTV Off-Air Troubleshooting guide



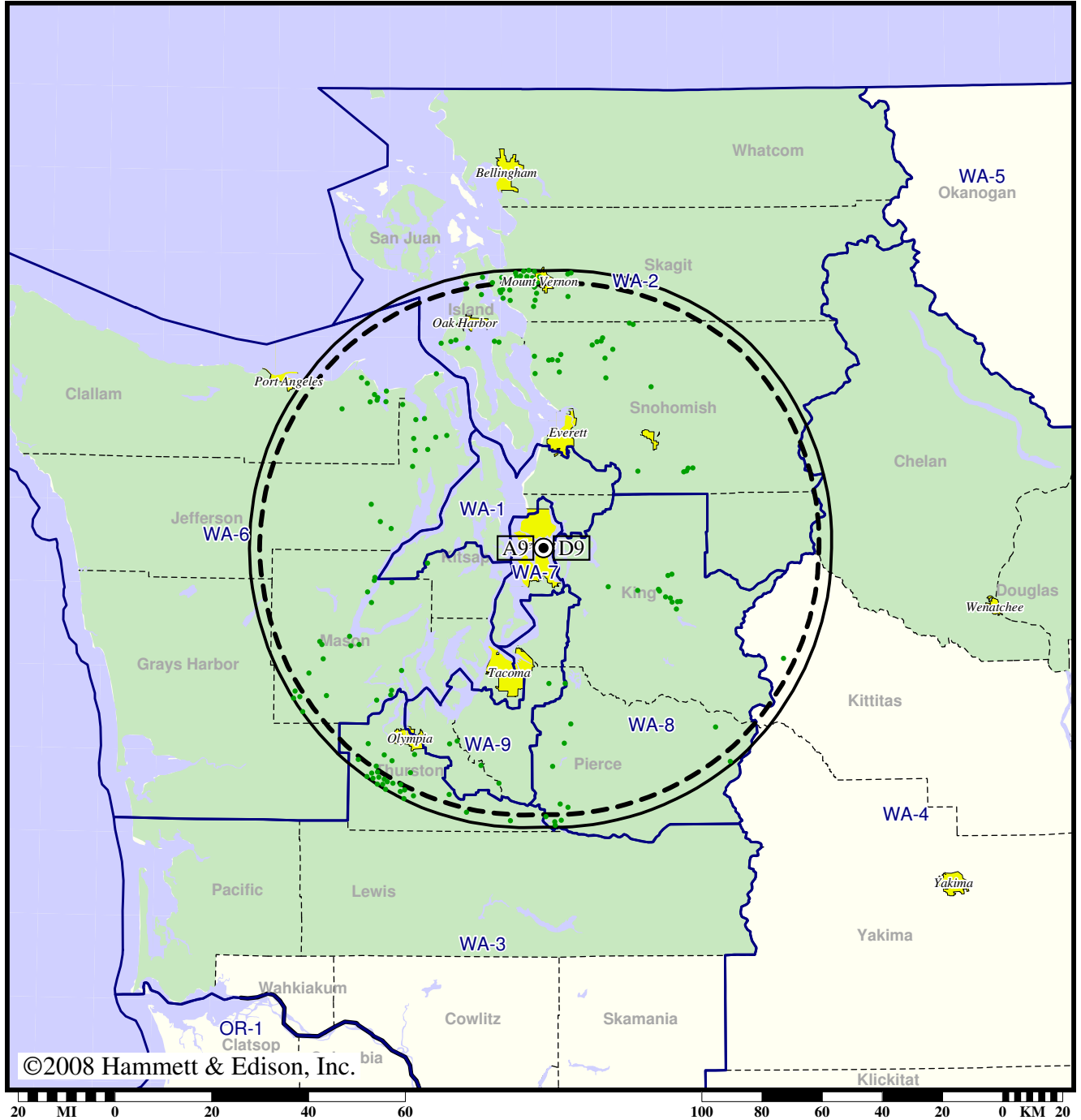
This chart is intended as a general guide and cannot guarantee that all viewers will get reception. There are many variables in receiving digital television off-air and not all situations will be resolved by following this guide. Depending on the viewer's location and terrain blockage between the viewer's antenna and the KCTS 9 transmitter it may not be possible to receive a signal off-air. On June 12, 2009 KCTS 9 digital transmitter moved to RF channel 9 which will require most viewers to re-scan on their set top box. <http://www.antennaweb.org> and <http://tvfool.com/> can help determine the proper antenna for a viewer.

Station KCTS-TV • Analog Channel 9, DTV Channel 9 • Seattle, WA

Expected Change In Coverage: Granted Construction Permit

CP (solid): 21.7 kW ERP at 249 m HAAT, Network: PBS  
vs. Analog (dashed): 316 kW ERP at 249 m HAAT, Network: PBS

Market: Seattle-Tacoma, WA



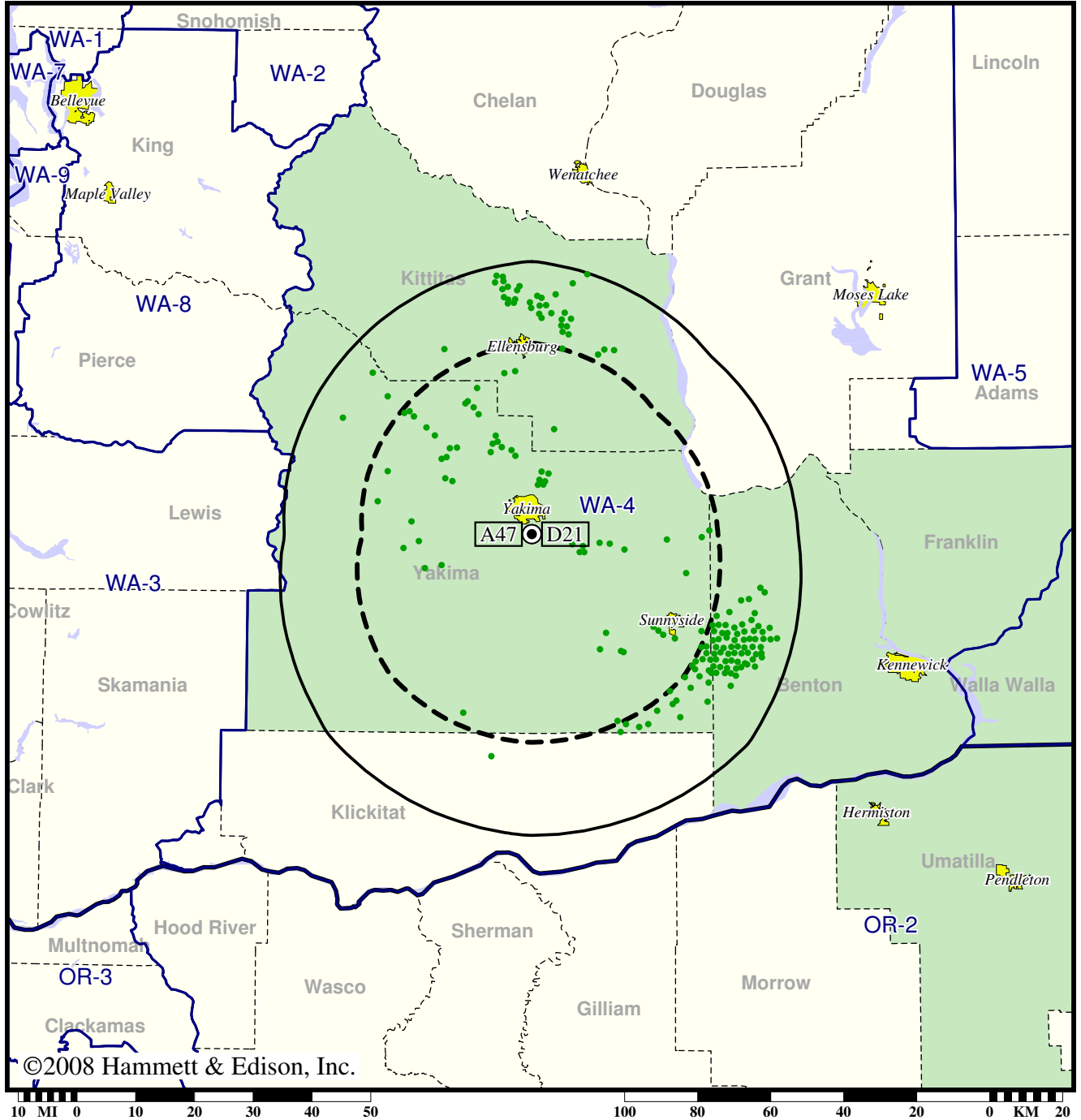
● Coverage gained after DTV transition  
(no symbol) No change in coverage

TV Station KYVE • Analog Channel 47, DTV Channel 21 • Yakima, WA

Expected Change In Coverage: Licensed Operation

Licensed (solid): 50.0 kW ERP at 280 m HAAT, Network: PBS  
vs. Analog (dashed): 110 kW ERP at 280 m HAAT, Network: PBS

Market: Yakima-Pasco-Richland-Kennewick, WA



©2008 Hammett & Edison, Inc.

● Coverage gained after DTV transition  
(no symbol) No change in coverage

## SCANNING and RE-SCANNING

On Friday, June 12, analog channel 9 and digital 41 will be shut off. KCTS 9 will then start transmitting on digital channel 9 (a VHF channel). At this point you will need to rescan your converter box or digital television so the tuner can locate digital channel 9. Check the chart on the next page for specific instructions on how to start a scan on your particular converter box.

### Scanning Troubleshooting

Some set-top boxes may scan too fast and "miss" one or more channels. You can add channels manually using the menu of the set top box. You might also try power-cycling the box; in some cases, stubborn boxes may need to be unplugged *while rescanning*. However, this should be a last resort. Most boxes will rescan by simply following steps one through four below.

Finally, if you still don't get a picture, you can bring up a signal strength meter and make adjustments to your antenna. More information on antennae can be found below.

### Converter Box Rescan Steps

Manufacturer	Model No.	Step 1	Step 2	Step 3	Step 4
Access HD	1010	Menu	Auto Channel Search	OK Button	
AirLink	ATVC101	Menu	Scan	Autoscan	
AMTC	AT2016	Menu	Autoprogram	OK Button	
Apex	DT250	Menu	Autoprogram	OK Button	
Artec	T3APro	Menu	Channel	Channel Scan	OK Button
Avion	ATB7707	Menu	Channel Scan	Terrestrial	OK Button
Casti	CAX-01	Menu	Channel	Channel Scan	
Channel Master	CM-7000	Menu	Channel Scan	Terrestrial	
Coship	N9900T	Menu	Channel	Channel Scan	
Daewoo	DAC-100	Menu	Setup Menu	Channel Scan	
Daytek	CAX-01	Menu	Channel	Channel Scan	
Digital Stream		Menu	Channel	Autoscan	
Dish Network	DTVPal	Menu	System Setup	Find New Channels	
Dolby		Menu	Right arrow	Down 2X to Autotuning	OK 2X
Energy Star		Menu	Right arrow to Channel	Down to Autoscan	OK 2X
GE		Menu	Channel	Auto	
GMI	DTA1000	Menu	Channel	Autoscan	
Gridlink	GTL-200	Menu	Easy Install	Autoscan	
Insignia	NS-DXA1	Menu	Setup (Right arrow to)	Autotuning	
Jiuzhou	DTT9001	Menu	Channel	Channel Scan	
Magnavox	TB100MW9	Setup	Channel	Autoscan	
MicroGem	MG2000	Menu	Autoprogram		
MicroProse	MPI-500	Menu	Channel	Channel Scan	
Philco	TB100HH9	Setup	Channel	Autoscan	
RCA	DTA800	Menu	Settings (Press 5)	Scan for channels (1)	Begin (1)
Tivax	STB-T9	Menu	Autoprogram		
Venturer	STB7766G1	Menu	Channel	Channel Scan	
Winegard	RC-DT09	Menu	Channel	Channel Scan	
Zentech	DF2000	Menu	Scan	Autoscan	
Zenith		Menu	Right arrow to Channel	Down 2X to Autotuning	
Zinwell	ZAT-875	Menu	Channel	Auotscan	

## ANTENNA

Digital TV is an "all or nothing" proposition; instead of seeing static or snow when the signal weakens, it may simply drop out. This is known as the "cliff effect," and can generally be solved by first, installing an all-band outdoor antenna; second, by using an antenna rotator if the antenna alone does not resolve the problem.

Antennae should be outside and at least 30 ft. off the ground. Make sure your antenna is UHF/VHF (also called an "all-band antenna"). Radio Shack, Best Buy, and Wal-Mart carry antennae. Of these stores, Radio Shack offers an installation service. The online store [www.solidsignal.com](http://www.solidsignal.com) offers a good antennae comparison feature.

Why an outdoor antenna is needed: Antennae Generally, antenna do not perform optimally in attics or elsewhere indoors. Interference from other electrical devices and your building's construction can severely hinder the entrance of the TV signal or cause signal reflection, which leads to ghosting. Depending on building construction, you can expect to lose at least 30% of the signal indoors. In a house with aluminum siding, signal loss could be 100%. Outdoor installation of antennae is always best.

If an outdoor antenna is not possible, moving your antenna near a window may help. The following is an online store that has a nice comparison feature of antennae: [www.solidsignal.com](http://www.solidsignal.com)

Connecting multiple TV sets to one antenna: You should be able to hook up multiple TVs to one antenna through a splitter and more coax cable. Make sure your coax is of good quality.

For additional information, including help on reception at your location, we recommend the interactive Web site [www.antennaweb.org](http://www.antennaweb.org)

## ASPECT RATIO

If you prefer a full-screen picture, you'll want to familiarize yourself with the different aspect ratio modes your TV offers. Usually, there's a dedicated button on the remote, often labeled "Wide" or "Aspect," that lets you cycle through several options.

It's important to keep in mind that your TV isn't the only thing in your system that can affect aspect ratio. Your cable box, DVD player, and other source components likely all have their own aspect ratio settings. The TV program your cable box displays, or the movie in your DVD player, also have their own set aspect ratios. If your TV, source component, and source material aren't all coordinated regarding aspect ratio, some undesired results may occur.

Older TVs don't have the capabilities necessary to compensate for the aspect ratio. We are not aware of any device on the market at this time to alleviate this problem.

To avoid aspect ratio issues as much as possible, here's what we suggest:

As you're setting up your video sources, be sure to go into the picture settings menu and set it to the proper aspect ratio. The specific terms used in these menus differ, but for a widescreen TV you'll likely see something called "widescreen" or "16:9."

Get to know your TV's aspect ratio controls. As we discussed before, today's TVs generally have a dedicated button on the remote that lets you quickly cycle through your options. Since the aspect ratio of the programming you're watching can change frequently—when you change the channel, for example, or even when a new show begins on the same channel—you should get comfortable using these controls to get the picture to your liking.

Here are some various situations:

(1) Occasionally, channels that normally broadcast shows in 16:9 mistakenly broadcast a 16:9 show in a 4:3 space;

(2) Sometimes DVDs labeled "anamorphic" will have this effect—even though they're supposed to fit a 16:9 screen, your DVD player or TV may not handle the signal properly.

In both cases, you may be able to correct the problem by adjusting aspect ratio settings on your cable/satellite box or DVD player, but often the easiest (and possibly only) thing you can do is simply zoom the smaller 16:9 image to fill your larger 16:9 screen.

KCTS 9 broadcasts programs available in HD in wide screen 16:9. When a program is not available in 16:9 HD KCTS 9 maintains the proper aspect ratio by adding black bars to the sides commonly known as pillar boxes. Viewers are able to control how their TV displays the picture by using their digital TV or their DTV converter box control. This function is usually labeled "zoom" or "aspect." When watching an HD program with a DTV converter box, the "letterbox" setting will display all of the video content. When watching a program on a DTV converter box that is not HD the setting "crop" will remove the pillar boxes.

KCTS 9 HD:

Programs produced in 16:9 HD

Programs produced in 4:3 SD up-converted for HD

KCTS 9 Create and V-Me are 4:3 channels.

Digital TV Widescreen:

Use normal setting to view the entire picture for 16:9 HD.

DTV Converter Box:

Using "letterbox" during all HD programs will show all of the picture content. Using "crop" during 4:3 SD shows will remove "pillar boxes".

Cable or Satellite:

Cable and satellite companies are receiving our DTV HD signal. The HD feed is formatted for a 16:9 display. To properly format the signal for display on a 4:3 TV, the cable or satellite company may take a "center-cut." This center-cut will result in a loss of picture content during 16:9 HD programs, but it is an effective compromise.

## **DTV DROP-IN CENTERS**

Seattle is one of several cities that have opened drop-in assistance centers to help people with the transition. The centers act as a hub by hosting hotlines, conducting DTV coupon drives, providing trainings on converter box installation and other technical support before, during and after the transition.

There are seven centers in the Seattle area. The following six can be contacted through a hotline at 206.508.1277, and are open evenings Monday through Friday (5:00 to 9:00 p.m.).

Youngstown Cultural Arts Center  
4408 Delridge Way SW

High Point Community Center  
6920 34th Ave SW

Jefferson Community Center  
3801 Beacon Ave S

Rainier Community Center  
4600 38th Ave S

Van Asselt Community Center  
2820 S. Myrtle St

Yesler Community Center  
917 E. Yesler Way

The Burien Community Center can be reached at 206.988.3760.  
425 SW 144th Street

Para Los Ninos is offering a Spanish-language DTV hotline at 206-988-3760.

The effort is being organized by Reclaim the Media, Youngstown Cultural Arts Center, Youth Media Institute, Leadership Academy with Para Los Ninos and the Leadership Conference on Civil Rights Education Fund.

## DTV Installation Assistance

The FCC has contracted INSTALLS Inc in Washington to provide in-home assistance and converter box installations at **no charge** in order for you to continue receiving your signals after the transition.

For more information on the digital television transition installation program, including information on help installing your low-cost converter box go to:

### **Installs Inc.**

<https://dtvhelp.installs.com> or call 1.800.582.4250

**Best Buy's "Geek Squad"** will also offer in-home installation. To request free converter box installation, qualified citizens may call the DTV conversion hotline at 877BBY-DTV9 (877-229-3889) 8 a.m. - 11 p.m. CST daily.

**AVO General Svc.** offers the following mobile clinic locations in Seattle and Tacoma through June 21.

### **Hours for all locations:**

M-F: 12pm - 8pm

Sat: 12pm - 8pm

Sun: 11am - 7pm

### **Northgate Mall**

401 NE Northgate Way

Suite 210

Seattle, WA 98125

### **Westlake Center**

400 Pine St.

Seattle, WA 98101

### **Tacoma Mall**

4502 South Steele St.

Tacoma, WA 98409

## **DTV Help Center for People who are Deaf, Hard of Hearing, or Deaf-Blind**

The NAD is pleased to be working with the Communications Service for the Deaf (CSD) as an outreach resource partner to inform and direct consumers to CSD's new DTV Transition Help Center.

The FCC awarded CSD a contract to conduct a DTV transition awareness campaign for deaf, hard of hearing and deaf blind consumers.

The Help Center can receive traditional phone calls as well as TTY, relay, video relay, videophone, and Cap Tel calls.

The Help Center customer support staff consists of both hearing people and people fluent in ASL. In addition, the Help Center can also answer questions via Instant Message and e-mail.

The new Help Center also has a Web site with information and "how-to" captioned videos in American Sign Language (ASL) and in Spanish (captioned and voiced). Visit [www.nad.org](http://www.nad.org) and click on the banner to be directly linked to the CSD Help Center Web site and contact information, or go directly to <http://dtv.c-s-d.org/>.

TTY 1.877.TTY.4CSD (1.877.889.4273)

Voice 1.877.DTV.4YOU (1.877.388.4968)

## Help Information for the Digital TV Transition

Seattle Market-Wide Phone bank:

1.877.429.1811

June 12 noon to 8:00 p.m.

June 13–15 4:00 to 8:00 p.m.

For federal DTV information:

[www.dtv.gov](http://www.dtv.gov) (Telephone 1.888.388.2009)

For Digital TV Facts please contact:

<http://dtvfacts.com>

For antenna issues please contact:

[www.antennaweb.org](http://www.antennaweb.org) or [www.tvfool.com](http://www.tvfool.com)

For all makes of DTV converter boxes please contact:

[www.solidsignal.com](http://www.solidsignal.com) or

[www.consumerelecgroup.com](http://www.consumerelecgroup.com)

## FCC Contact Information

### **FCC DTV Helpline & Coupon Requests**

1.888.225.5322 (24 hours / 7 days)

### **General FCC Info**

1.888.225.5322 8 am- 5:30pm (Eastern Time) or Fax 1.866.418.0232

[www.fcc.gov](http://www.fcc.gov) Click on "consumer" tab, click on "file a complaint."

Write to:

FCC

Consumer & Government Affairs Bureau/Consumer Complaints

445 12<sup>th</sup> St. SW

Washington D.C. 20554

The Federal Communications Commission (FCC) is an independent United States government agency. The FCC was established by the Communications Act of 1934 and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. The FCC's jurisdiction covers the 50 states, the District of Columbia, and U.S. possessions.

### **Cable and Satellite Company Telephone Numbers**

Comcast Cable 1.800.266.2278

Broadstripe Cable 1.800.829.2225

Verizon (FiOS) Cable 1.800.837.4966

Wave Cable 1.866.928.3123

DirecTV 1.800.531.5000

Dish Network 1.888.825.2557