



## DIGITAL QUICK START

Your easy-to-follow guide to setting up  
Charter Business™ Digital Cable TV

**MOTOROLA HD**  
DCT5100/DCT6200

Charter Business™ Digital Cable TV SELF-INSTALL GUIDE



**Call 800-314-7195**  
**www.Charter-Business.com**

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**Note:** The install diagrams on pages 4-8 illustrate a number of different configurations depending upon the type of devices that you have in your entertainment system. Select and complete the one diagram out of these pages that best fits your business needs.

# Welcome

Congratulations on your new Charter Business HDTV™ digital receiver. You have entered the most advanced generation of TV viewing available. We know you will be thrilled with what you see.

As with all Charter Business Digital service, you will experience more channels to choose from, an easy-to-use on-screen program guide, unparalleled video and audio quality.

With this Charter Business Quick-Start Kit, you are just a few minutes away from experiencing high-definition digital picture quality. Follow these instructions to get started:

- Review the safety and install tips on page 2.
- Identify the install diagram on pages 4-8 that best fits your system.
- Connect your Charter Business HDTV receiver.
- Program your picture settings and then try out your service to confirm the installation was successful.\* (See page 9)

**\*Note:** The download of your digital programming content may take up to one hour.



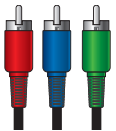
# Safety and Install Tips

## Safety First

- Do not plug the high-definition digital receiver into an electrical outlet until after you have connected it to the TV, the cable wall outlet and any other devices.
- Position the high-definition digital receiver with at least 2 inches of space on all sides to allow the device to properly cool when operating.
- Ensure that the high-definition digital receiver is not near an external heat source that could raise the temperature of the unit.
- Do not expose the high-definition digital receiver to moisture. Unplug the receiver before cleaning and avoid using liquid or aerosol cleaners.
- Use a surge protector.

## Useful Install Tips

- Connect the high-definition digital video receiver directly to the cable wall outlet.
- Be sure that all connections between the TV, VCR, digital receiver and the cable wall outlet are secure.
- There are two different cable options that can be used to deliver HD video signal to your HDTV. This kit includes standard component cables which are one of the most common connection options. DVI cables are optional and sold separately.



### a. Component Input Cables

High-quality video connection that uses three separate component cables, generally color-coded green, blue and red. These are also called Y, Pb, Pr Cables.



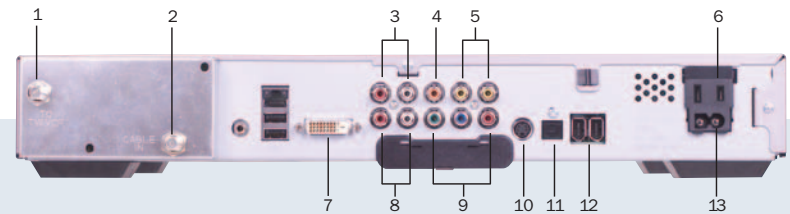
### b. DVI Connectors

Digital Video Interface cables are all digital, high-quality video connectors that are more common on newer high-definition televisions.

- See <http://charter.com/quickstart> for additional wiring configurations.

# Your HD Digital Receiver Back Panel

The back panel of the HD digital receiver consists of three types of interfaces — audio, video and data. The following drawing describes the most commonly used ports.



KEY	DESCRIPTION	MODEL MAY VARY
1	<b>TO TV/VCR</b>	This coaxial output connector is used to connect the cable box to a TV or VCR operating on channel 3 or 4.
2	<b>CABLE IN</b>	The CABLE IN connector connects the HD receiver to the cable wall outlet.
3	<b>AUDIO IN R AUDIO IN L</b>	These connectors are used to connect the digital receiver between a peripheral audio device such as a CD player and a stereo tuner or A/V receiver.
4	<b>SPDIF</b>	The orange coaxial SPDIF connector is a digital output connection that carries Dolby Digital 5.1 audio or PCM audio. It is used to connect the digital receiver to a stereo tuner or A/V receiver to provide surround-sound.
5	<b>VIDEO IN VIDEO OUT</b>	The VIDEO IN connector accepts an RCA video input from a VCR, camcorder or other video device. (Not currently enabled.) The VIDEO OUT connector is used to deliver RCA video to an external device such as a VCR or TV.
6	<b>OUTLET</b>	This AC outlet may be used to plug your TV into the cable box as a convenient additional outlet.
7	<b>DVI-D</b>	Digital Video Interface, connects HD receiver to the HDTV using a DVI cable. (optional)
8	<b>AUDIO OUT R AUDIO OUT L</b>	The RCA phono-type connectors are used to deliver audio to a stereo receiver.
9	<b>Y Pb Pr</b>	These connectors are used to deliver component video to a HD-ready TV or monitor. Though capable of delivering standard definition video to your TV or monitor, these cables are necessary to deliver High-Definition video.
10	<b>S-VIDEO</b>	This connector is used to deliver high quality, standard definition video to the external devices that accept S-Video inputs, (optional)
11	<b>OPTICAL SPDIF</b>	The OPTICAL SPDIF connector is an optical digital output connection that carries Dolby Digital 5.1 audio or PCM audio. It is used to connect the cable box to a stereo tuner or A/V receiver to provide surround-sound, theater style audio. (optional)
12	<b>IEEE 1394</b>	Firewire Digital Interface to connect high-definition monitor or high-definition television. (optional, not available on all models)
13	<b>POWER INLET</b>	Connects the digital receiver to the power cord.

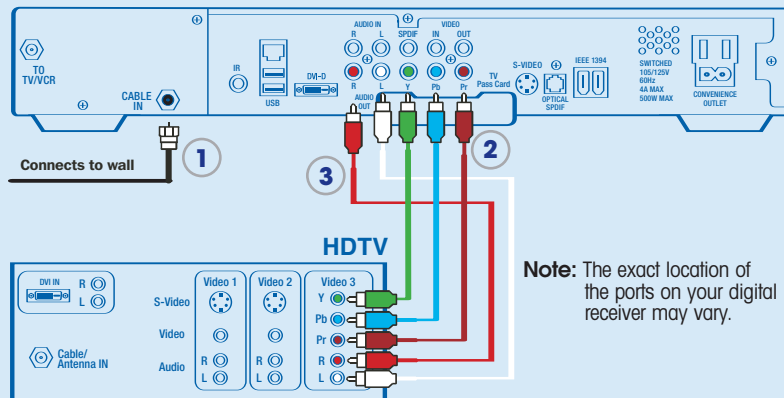
# Installation Diagrams

## Connecting the high-definition digital receiver to an HDTV using the included cables

This is a common configuration for HDTV's which uses the component cables provided by your Charter Business Quick-Start Install kit.

### What you will need:

- 1 COAX cable 
- 1 RCA cable 
- 1 Y, Pb, Pr component cable 



**STEP ONE:** Connect the coax cable between the cable wall outlet and the **CABLE IN** port on the high-definition digital receiver.

**STEP TWO:** Locate the **Y, Pb, Pr** inputs on the HDTV and the **Y, Pb, Pr** outputs on the high-definition digital receiver. (Y=green, Pb-blue, Pr-red). Connect the provided component cable (red, blue green) to the **Y, Pb, Pr** **OUT** ports on the high-definition digital receiver and the corresponding **IN** ports on the HDTV.

**STEP THREE:** Connect the **RCA** cables between the **DIGITAL AUDIO OUT R** (red)/**DIGITAL AUDIO OUT L** (white) ports on the high-definition digital receiver with the **AUDIO IN R** (red)/**AUDIO IN L** (white) ports on the HDTV.

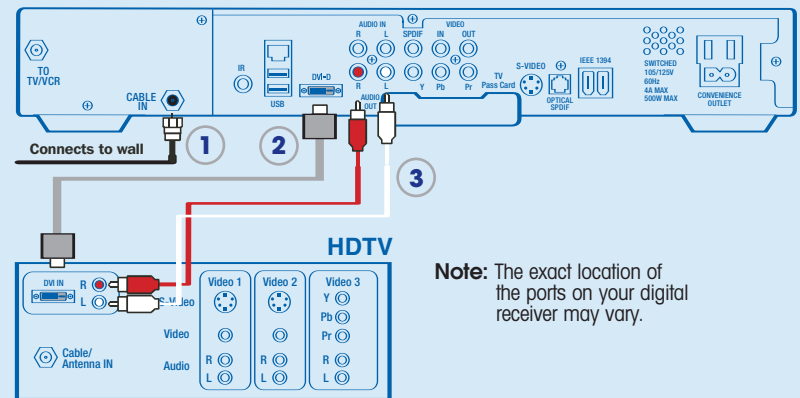
**STEP FOUR:** Plug in and turn on your devices. Select the input source on your HDTV that you used. See page 9 to program your picture settings.

## Connecting the high-definition digital receiver to an HDTV using a DVI cable (DVI cable sold separately)

This is the configuration you will use if you already have a DVI connector for your HDTV.

### What you will need:

- 1 COAX cable 
- 1 RCA cable 
- 1 DVI cable 



**STEP ONE:** Connect the coax cable between the cable wall outlet and the **CABLE IN** port on the high-definition digital receiver.

**STEP TWO:** Connect the **DVI** cable between the **DVI** port on the HD Receiver and the **DVI/HDCP IN** port on the HDTV.

**STEP THREE:** Connect the **RCA** cables between the **DIGITAL AUDIO OUT R** (red)/**DIGITAL AUDIO OUT L** (white) ports on the high definition digital receiver with the **AUDIO IN R** (red)/**AUDIO IN L** (white) ports on the HDTV.

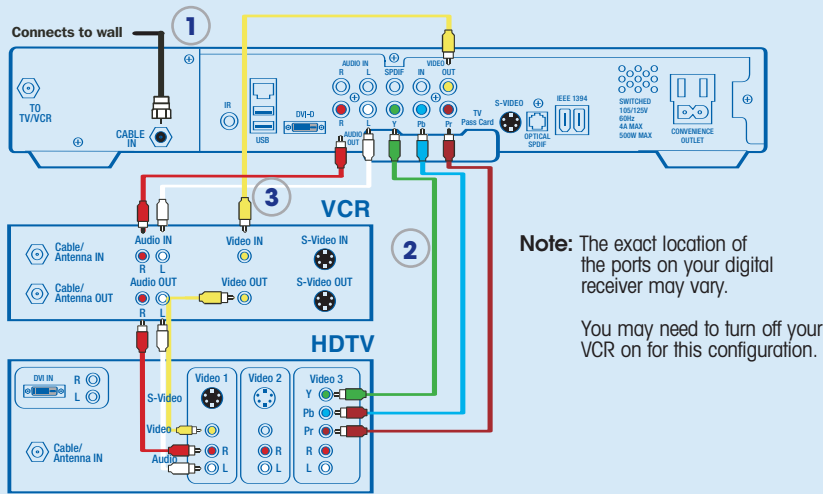
**STEP FOUR:** Plug in and turn on your devices. Select the DVI input source on your HDTV. See page 9 to program your picture settings.

## Connecting the high-definition digital receiver to an HDTV and a stereo VCR

This configuration allows you to watch HD and standard-definition video on your HDTV as well as record and play standard-definition video through your VCR.

**What you will need:**

- 1 COAX cable 
- 2 RCA cables 
- 1 Y, Pb, Pr component cable 



**Note:** The exact location of the ports on your digital receiver may vary.

You may need to turn off your VCR on for this configuration.

**STEP ONE:** Connect the coax cable between the cable wall outlet and the **CABLE IN** port on the high-definition digital receiver.

**STEP TWO:** Connect the provided component cable between the **Y, Pb, Pr OUT** (Y=green, Pb=blue, Pr=red) ports on the high-definition digital receiver and the corresponding **Y, Pb, Pr IN** ports on the HDTV.

**STEP THREE:** Connect RCA composite cables (red, white, yellow) between the **DIGITAL AUDIO OUT R** (red)/**DIGITAL AUDIO OUT L** (white) and **VIDEO OUT** (yellow) ports on the high-definition digital receiver with the **AUDIO IN R** (red)/**AUDIO IN L** (white) and **VIDEO IN** (yellow) ports on the VCR.




**STEP FOUR:** Repeat Step three using a second set of RCA Cables between the VCR and HDTV.

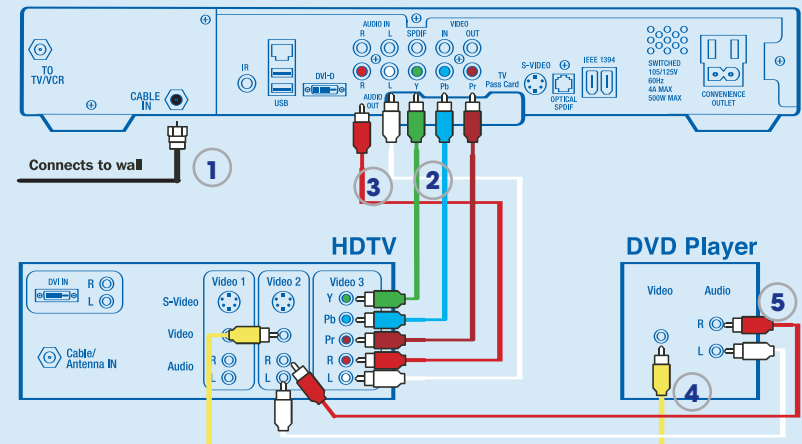
**STEP FIVE:** Plug in and turn on your devices. Select the input source on your HDTV that corresponds with the ports that you used on the back of your HDTV. See page 9 to program your picture settings.

## Connecting the high-definition digital receiver to an HDTV and an DVD player

If you have a DVD player, connect it directly to the HDTV as indicated below.

**What you will need:**

- 1 COAX cable 
- 1 RCA cables 
- 1 Y, Pb, Pr component cable 



**Note:** The exact location of the ports on your digital receiver may vary.

Steps ONE, TWO, and THREE: See page 4 for instructions on connecting the HDTV to the high-definition digital receiver. (You will use the coax cable and Y, Pb, Pr cables for this step).

After connecting your HD digital receiver to your HDTV as demonstrated on page 4, complete the following steps to connect your DVD player.

**STEP ONE:** Connect the RCA video cable (yellow) between the **VIDEO OUT** port on the DVD player and a **VIDEO IN** port on the HDTV.

**STEP TWO:** Connect the RCA audio cables (red and white) between the **AUDIO OUT L** (white) /**AUDIO OUT R** (red) ports on the DVD player and the **AUDIO IN L** (white) /**AUDIO IN R** (red) ports on the HDTV.



**Note:** You might need to select the input ports that you used for this connection to view DVD content.

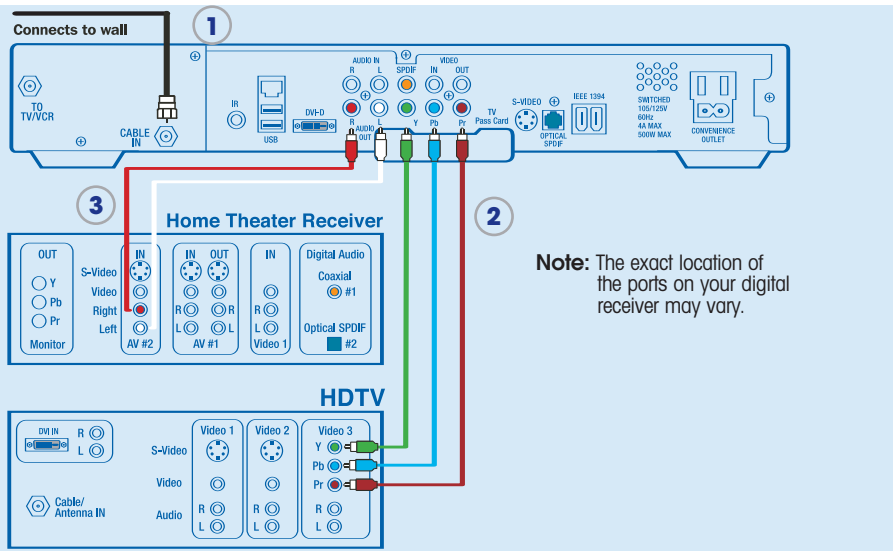
## Installation Diagrams

### Connecting the high-definition digital receiver to an HDTV and an A/V receiver

To get the best possible audio performance out of your HD service, use an A/V receiver for sound production. Follow the cabling instructions below.

#### What you will need:

- 1 COAX cable 
- 1 RCA cables 
- 1 Y, Pb, Pr component cable 



**STEP ONE:** Connect the coax cable between the cable wall outlet and the **CABLE IN** port on the high-definition digital receiver.

**STEP TWO:** Connect the provided component cable to the **Y, Pb, Pr OUT** ports (Y=green, Pb=blue, Pr=red) on the high-definition digital receiver and the corresponding **IN** ports on the HDTV.

**STEP THREE:** Connect RCA composite cables between the **DIGITAL AUDIO OUT R** (red)/**DIGITAL AUDIO OUT L** (white) ports on the high-definition digital receiver with the **AUDIO IN R** (red)/**AUDIO IN L** (white) ports on the A/V Stereo Receiver.

**STEP FOUR:** Plug in and turn on your devices. Confirm that you have selected the correct source inputs for each device. See page 9 to program your picture settings.

## Programming your HD picture settings

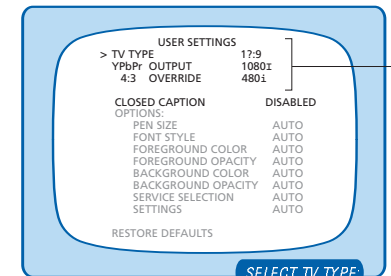
The final step is tailoring your digital receiver to the capabilities of your HDTV using the On Screen Menu. This allows the digital receiver to automatically optimize both Standard and High-Definition video, based on your HDTV and personal preferences.

To access the On Screen Menu, power ON your HDTV and power OFF the digital receiver. Press the MENU button on either your remote control or the digital receiver front panel to call up the On Screen Display.\* You may use either the digital receiver front panel or the remote control to navigate the display:

- The arrow on the left indicates the position of the cursor.
- Press the **▲** and **▼** buttons to select the setting you wish to change.
- Press the **▶** button to select an option for that setting.
- To exit the setting and move to another setting, use the **▲** and **▼** buttons.
- Press the **POWER** or **MENU** button to exit the menu and save your settings.



The settings shown in this diagram are for illustrative purposes, and only represent one possible configuration. Please refer to the following sections for more setting options.



#### TV TYPE

The first user setting is TV TYPE. Your selection tells the digital receiver what type of TV you have and how you prefer to watch widescreen programming. Your choices are 16:9, 4:3 Letterbox, or 4:3 Pan Scan.

- Choose 16:9 if you have a widescreen HDTV.
- Choose 4:3 Letterbox if you have a standard TV and you prefer to watch widescreen programming in its original aspect ratio.



\* If the On Screen Menu does not appear on your HDTV screen, your TV may not support the default, standard definition setting (480i). In this case, use the digital receiver front panel LED to view and change your settings.

# Troubleshooting

## Programming your HD picture settings

- Choose 4:3 Pan Scan if you have a standard screen TV and you prefer that widescreen programming is cropped to fill your screen. Think of this last choice as watching a theater-style movie that has been reformatted to fit your standard screen TV.



### Y Pb Pr OUTPUT

Next, use the down arrow to select Y Pb Pr OUTPUT. This setting indicates the picture resolution you prefer when watching High-Definition programming. The choices, listed in order of highest to lowest picture resolution, are 1080i, 720p, 480p, and 480i. Your selection will depend on which format(s) your HDTV supports. To maximize your high-definition viewing experience, refer to your television set owner's manual, and use the right arrow button to choose the setting that indicates the highest picture resolution that your television will support.

### 4:3 OVERRIDE

Finally, use the down button arrow to select 4:3 OVERRIDE. By selecting 480i or 480p you are telling the digital receiver to send Standard Definition programming to your TV in its original broadcast format. Select OFF and the cable box will default to the resolution selected in the Y Pb Pr OUTPUT setting above. To exit and save changes press the POWER or MENU button.

For more details on configuring your digital receiver output settings, including setting Closed Caption preferences, see the User Guide for your HD receiver which is available at <http://charter.com/quickstart>.

### Problem

#### Possible Solution

#### No sound

- Press MUTE on the remote control to restore the volume level.
- Check that the receiver is set to the proper input source.
- Turn your VCR on.

#### No picture

- Check to be sure that all cables are connected properly and that your TV is tuned to channel 3 or 4, if using the TO TV-VCR connections. Hand-tighten the cable connections if necessary.
- Check that your component connection cables are not crossed. Y goes to Y, Pb to Pb and Pr to Pr.
- If connected through the RCA video connection, make sure the cables are connected properly.
- Turn VCR on/off.
- Ensure that the proper video display format for your TV has been selected.

#### No Guide or wrong Guide

- Check that your HD receiver is connected directly to the cable wall outlet.

#### Picture or sound is noisy on one channel

- Reconnect the coax cables and hand-tighten if loose.

#### Sound from only one stereo speaker

- Hand-tighten or reconnect the cables.
- Ensure that wires are not frayed and plugs are not bent or broken.

#### No power

- Reconnect the power cord.
- Ensure that the HD receiver is plugged into an active outlet.

#### Remote control does not work

- Press CABLE on the remote control.
- Ensure that nothing is blocking a clear line of sight between the HD receiver and the remote control.
- Change the batteries in your remote control and then re-program your remote control.

#### Poor audio quality

- Use the remote control to set the HD receiver volume level to approximately 3/4 of maximum volume level and then adjust the audio levels on the external devices.

Notes