### User Guide

DCT5100 High Definition Cable Rece<u>iver</u>







Graphical symbols and supplemental warning marking locations on bottom of terminal.

#### WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

#### **CAUTION**

TO PREVENT ELECTRICAL SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

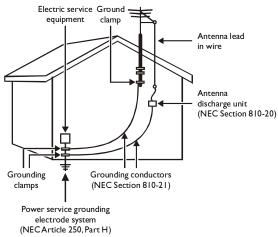
#### **REPAIRS**

If you find the unit in need of repair, call Motorola Support at I-866-668-2271 or I-866-MOT-BCS1.

#### NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close as possible to the point of cable entry as practical.

#### **EXAMPLE OF ANTENNA GROUNDING**



NEC=NATIONAL ELECTRICAL CODE

#### IMPORTANT SAFETY INSTRUCTIONS

#### 1 Read instructions

All the safety and operating instructions should be read before the appliance is operated.

#### 2 Retain instructions

The safety and operating instructions should be retained for future reference.

#### 3 Heed warnings

All warnings on the appliance and in the operating instructions should be adhered to.

#### 4 Follow instructions

All operating and use instructions should be followed.

#### 5 Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

#### 6 Attachments

Do not use attachments not recommended as they may cause hazard.

#### 7 Water and moisture

Do not use this equipment near water; for example, near a bathtub, wash bowl, kitchen sink, or laundrytub, in a wet basement, or near a swimming pool, and the like.

#### 8 Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall causing serious injury and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the equipment. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

#### 9 Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the equipment and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug, or similar surface. Equipment should never be placed near or over a radiator or heat register, or in a built-in installation such as a bookcase or rack unless proper ventilation is provided.

#### 10 Power sources

This product should be operated only from the type of power sources indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company. For equipment intended to operate from battery power, or other sources, refer to the operating instructions.

#### 11 Ground or polarization

This equipment may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

#### 12 Alternate warnings

This equipment may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This pin will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

#### 13 Power cord protection

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance

#### IMPORTANT SAFETY INSTRUCTIONS

#### 14 Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the equipment, be sure the antenna or cable system is grounded as to provide some protection against voltage surges and built-up static charges.

#### 15 Lightning

For added protection for this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

#### 16 Power lines

An outside antenna system should not be located in the vicinity of overhead power lines or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them may be fatal.

#### 17 Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electrical shock.

#### 18 Object and liquid entry

Never push objects of any kind into this equipment through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.

#### 19 Servicing

Do not attempt to service this equipment yourself, as opening or removing covers may expose you to dangerous voltage or other hazards, refer all servicing to qualified service personnel.

#### 20 Damage requiring service

Unplug this equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a When the power supply cord or plug is damaged.
- **b** If the equipment has been exposed to rain or water.
- c If liquid has been spilled, or objects have fallen into the equipment.
- d If the equipment does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the equipment to its normal operation.
- **e** If the equipment has been dropped or cabinet has been damaged.
- **f** When the equipment exhibits a distinct change in performance, indicating a need for service.

#### 21 Replacement parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

#### 22 Safety check

Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the product is in proper operational condition.

#### IMPORTANT SAFETY INSTRUCTIONS

#### 23 Telephone equipment

Observe the following precautions when installing telephone modem equipment:

- a Never install telephone wiring during a lightning storm.
- **b** Never install telephone jacks in a wet location unless the jack is specifically designed for wet locations.
- C Never touch uninsulated telephone wires or terminals unless the telephone lines have been disconnected at the network interface.
- **d** Use caution when installing or modifying telephone lines.

#### 24 Battery usage

Notwithstanding any information provided by Motorola in this manual regarding the use of batteries, the end user assumes all responsibility and liability to use and dispose of batteries in accordance with all applicable laws, rules and regulations. Motorola will not be liable to anyone for the end user's failure to use and/or dispose of batteries in the proper manner and in accordance with such laws, rules and regulations, or for any defect contained in batteries which may cause injury damage to persons or property.

# **Regulatory Information**

Federal Communications Commission Radio and Television Interface Statement for a Class 'B'
Device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in the residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Increase the separation between the equipment and the affected receiver
- Connect the equipment on a circuit different from the one the receiver is on
- . Ensure that the cover plate for the security card is secured and tight

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Declaration of Conformity**

According to 47 CFR, Parts 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers, Motorola, Inc., 6450 Sequence Drive, San Diego, CA 92121, 1-800-225-9446, declares under sole responsibility that the product identifies with 47 CFR Part 2 and 15 of the FCC Rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47 CFR 2.909. Operation is subject to the following condition: This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47 CFR, Paragraphs 15.101 to 15.109. The Class B digital apparatus meets all requirements of the Canadian Interface Causing Equipment Regulations.

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## **Canadian Compliance**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respects toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### Contact Us

For technical support of your Receiver, call Motorola Support at 1-866-668-2271 or 1-866-MOT-BCS1.

For questions about your cable TV service, call your local cable service provider.

For Motorola consumer cable products, education, and support:

http://www.motorola.com/broadband

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### DCT5100 User Guide

# INTRODUCTION

Congratulations on purchasing a Motorola DCT5100 High Definition Cable Receiver, one of the most advanced interactive digital cable receivers available today. With the DCT5100, Motorola has merged the extraordinary features of digital cable – the seemingly endless programming options, interactive program guides, Video on Demand (VOD), and commercial free, CD quality music – with the incredible picture quality and sound of High-Definition TV.

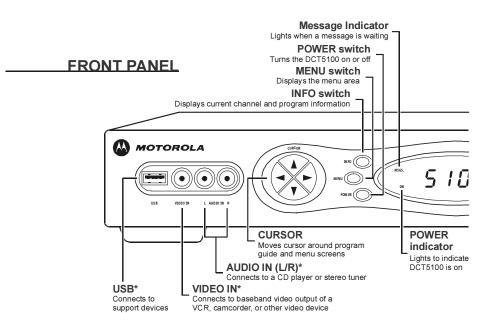
This User Guide introduces you to the basic features of the DCT5100, outlines important safeguards, and provides several options for integrating this component into your current entertainment system. Please take a few moments to read through this User Guide as the configuration diagrams, on-screen menu description, and troubleshooting section will help you make the most of your home entertainment experience.

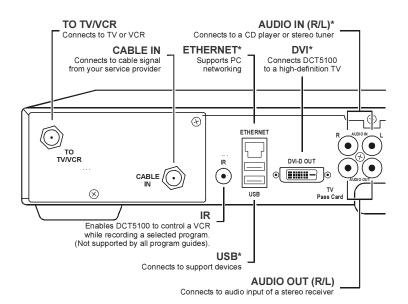
To determine which features of digital cable are provided in your service area, please check with your local cable operator. They will be happy to provide instructions for these optional services.

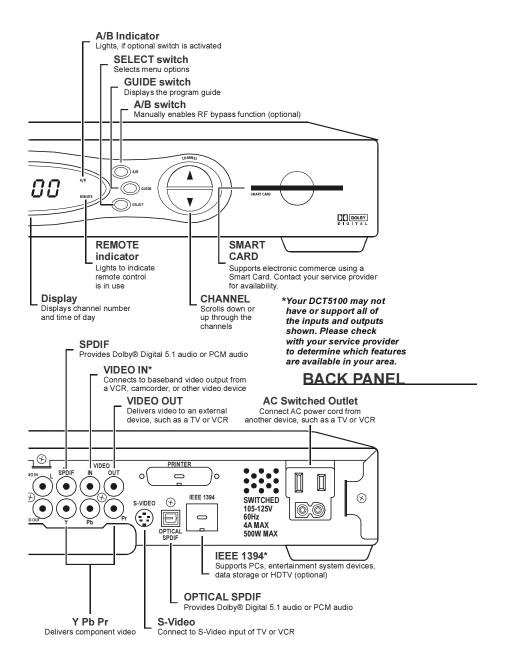
**IMPORTANT!** The Motorola DCT5100 can be activated only in certain cable systems. Contact your local cable TV provider to determine whether your Motorola DCT5100 cable can be activated.



## INTRODUCTION

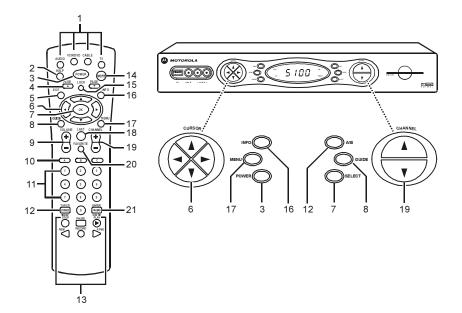








# REMOTE CONTROL



# DCT5100 User Guide

The DRC 450 remote control provides basic control of the DCT5100, TV, VCR, DVD, and audio devices. For programming instructions and remote codes, refer to the DRC 450 User Guide included with your remote control.

	Key	Description
1	AUDIO, VCR/DVD, CABLE, OR TV	Selects a device to control. The selected mode will remain active until you press another key.
2	HELP	Displays the help screen.
3	POWER	Turns the currently selected device on or off.
4	PAGE ▲ PAGE ▼	Pages through menu screens and program guide.
5	EXIT	Exits a menu or program guide.
6	<b>∢ A ▶ ▼</b> CURSOR	Moves the cursor around the program guide and menu screens.
7	OK/SELECT	Selects menu options, VOD, Pay-Per-View events or programs from the program guide.
8	GUIDE	Displays the program guide.
9	VOLUME + VOLUME -	Increases or decreases the volume of the currently selected device.
10	A / B / C	Functionality is determined by your service provider. Not enabled on the DCT5100.
11	NUMBER KEYS	Use to directly select a channel.
12	TV/VCR BYPASS or A/B	Use to manually enable the RF bypass function. Requires a cable-ready TV to operate. (Not available on all units.)
13	STOP, PAUSE, PLAY, REW, RECORD, F.FWD	Controls the VCR, DVD, or personal video recorder (PVR).
14	MUTE	Toggles the sound on and off.
15	LOCK/PPV	Use to limit viewing of selected programs.
16	INFO	Displays the current channel and program information. (Not supported by all applications.)
17	MENU	Displays the main menu.
18	LAST	Recalls the last channel or returns to the previous menu screen.
19	CHANNEL + CHANNEL -	Changes the channels up or down.
20	FAVORITE	Displays preset favorite cable channels.
21	ENTER/MUSIC	Displays digital music channel menus. On some TV models press to enter channels.



### **BASIC OPERATION**

### **Turning Power On and Off**

Press POWER on the front panel to turn the DCT5100 on or off. When using the remote control, be sure it is in cable mode by pressing CABLE before pressing POWER.

# **Changing Channels**

You can change channels in two ways:

- Press CHANNEL ▲ or ▼ on the front panel of the DCT5100, or press CHANNEL + or - on the remote control to step through the channel selection.
- Enter the number of the channel you want to tune using the number keys on the remote control.

# **Adjusting the Volume**

Press VOLUME + or - on the remote control to adjust the volume. When you adjust the volume, the volume scale is displayed on the screen. Press MUTE on the remote control to turn the sound off and on again.

For best audio quality, use the remote control to set the DCT5100 to approximately  $\frac{3}{4}$  of the maximum volume level and then adjust the audio levels on external devices such as your TV or A/V Receiver.

# **Interactive Program Guide**

The interactive program guide displays information about TV programs and enables you to access features such as Parental Control or Pay-Per-View. Interactive program guides can vary with each cable service provider. Refer to the interactive program guide instruction manual for detailed instructions.

### **AUDIO/VIDEO CONNECTIONS**

Before you begin to hook up your DCT5100, review the following:

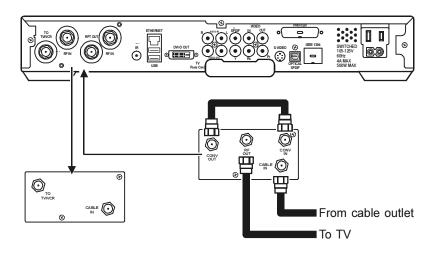
- For basic cable connections, use 75-ohm coaxial cables equipped with F-type connectors. A 6-foot coaxial cable is provided to connect the DCT5100 to your cable wall outlet. A 6-foot component video cable and left/right audio cables are provided to connect the DCT5100 to your TV.
- If you are connecting a coaxial cable from the TO TV/VCR connector on the DCT5100 to the coaxial CABLE/ANTENNA IN connector on the TV, you must tune your TV to channel 3 or 4 to view the DCT5100 output. Connecting the DCT5100 in this manner will remove its high definition video capability.
- Disconnect power from the DCT5100 before connecting or changing cable connections.
- Do not place anything on top of the DCT5100, especially other home entertainment components.

DCT5100s offer component video, an output that provides a higher level of picture quality. If your high definition television (HDTV) or home theater receiver has component video inputs, connect to the component video connections on your DCT5100 instead of the RCA or S-Video video connections. A component video cable is supplied with your DCT5100 for connecting component video. For more information, see the High Definition Television section.



# **RF BYPASS**





# DCT5100 User Guide

The DCT5100 may be equipped with an optional RF Bypass switch.

When the optional RF bypass switch is activated, it routes the cable signal directly to a cable-ready TV, bypassing the DCT5100. This configuration enables you to view clear analog programming on the direct cable signal should the DCT5100 be powered off.

The RF bypass is not available on all cable systems.

## **BEFORE YOU BEGIN**

Please take a few minutes to read through these pages before connecting your DCT5100 for the first time.

Your new DCT5100 brings a world of entertainment possibilities to your living room: high-quality video, surround-sound audio, on-demand programming and much more. However, before you can enjoy all your new services, the DCT5100 must be updated with the latest operating software, authorized by your local cable operator and customized for your HDTV. This section describes the simple steps required to download the necessary software, notify your cable company that your DCT5100 is ready to receive programming, and configure your DCT5100 to work with your HDTV.

Please connect the DCT5100 to your other home entertainment devices before proceeding with the steps below. See the connection diagrams under "Connecting Your DCT5100" for the appropriate connections for your home entertainment system.

### **Downloading Software**

Once you have completed connecting your DCT5100 to your other home entertainment devices, plug the power cord supplied with your DCT5100 into the DCT5100 power inlet and your wall outlet. The software download will start automatically.

After a few moments **HUNT** will appear in the front panel LED, and then **Fr I**. This indicates the DCT5100 is checking for a data channel with the information that allows it to synchronize with your cable operator's system and download software.

Until the data channel is identified, **HUNT**, **Fr 2**, **HUNT**, **Fr 3**, etc., up to **Fr 10**, may be displayed on the front panel LED.

Once the DCT5100 locates the channel, the letters **dL** and a spinning zero will appear in the front panel LED. This indicates the software download is underway.

The software download may take up to 45 minutes (or longer if your cable operator is experiencing high demand). As long as the progress indicator is spinning, the download is progressing.

Once the download is complete, **EF** will be displayed in the LED, and then **FP**. These displays may each last up to 60 seconds, after which the LED will go blank.

Proceed to the next step, Calling your Cable Operator for Authorization.

# Calling Your Cable Operator for Authorization

1 Turn on your DCT5100 by pressing **POWER** on the front panel.

**0** is displayed in the LED, indicating the software download was successful and your DCT5100 is ready to be authorized for service.

2 Obtain your DCT5100's serial number and unit address before calling your cable operator.

These numbers can be found on the peel-off label on the front of your DCT5100 as well as on the unit itself. The Serial Number consists of twelve characters beginning with Gl. The Unit Address consists of 16 numbers proceeded by UA.

**3** Call your cable operator.

Your cable operator will record your billing information and authorize your DCT5100 to operate on their system. This process may take up to 30 minutes (or longer if your cable operator is experiencing high demand).

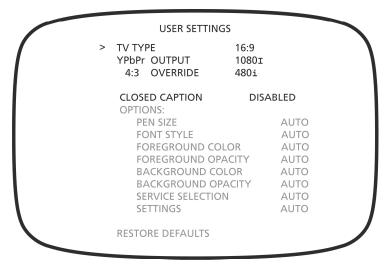
Proceed to "Configuring Your DCT5100 for HDTV".

## Configuring Your DCT5100 for HDTV

Please connect the DCT5100 to your other home entertainment devices and authorize the DCT5100 before proceeding with the steps below. See the connection diagrams under "Connecting Your DCT5100" for the appropriate connections for your home entertainment system. See "Authorizing your DCT5100" for authorization instructions.

You can use the on-screen display menu to configure your high definition settings for TV type, component video outputs, and close captioning.

To access your high definition settings, ensure that your DCT5100 is plugged into a power outlet and is turned off. Press the **MENU** key on the front panel. If your TV is on, the on-screen display menu appears listing the settings you can configure. The user settings will also be displayed on the front panel LED whether your TV is off or on.



If the on-screen display menu does not appear on your HDTV screen, your TV may not support the default standard definition setting (480i). Use the DCT5100 front panel LED to view and change your settings.

Use your remote control or the cursor keys on the front panel to navigate the on-screen display. Press the ▲ and ▼ keys to highlight the setting you wish to change. Press the ▶ key to select an option for that setting. To exit the setting and move to another setting, use the ▲ and ▼ keys. To exit the menu and save your settings, press the **POWER** or **MENU** key.

The high definition settings are described in the table on the following pages.

# DCT5100 User Guide

# **User Options**

Setting	Description
TV Туре	Selects the type of TV. The LED panel will display the output type you have selected. Defaults to 16:9 WIDESCREEN.
	Options are 16:9 WIDESCREEN for wide screen TVs; 4:3 LETTERBOX or 4:3 PAN/SCAN (for normal TVs).
	4:3 LETTERBOX fits High Definition programming onto your screen by placing black bars at the top and bottom of the screen. 4:3 PAN/SCAN fills the entire screen by cropping the left and right edges of enhanced definition widescreen programming.
Y Pb Pr Output	Selects the video display format for the component video outputs. The LED panel will display the format you have selected. Defaults to 1080i.
	Options are 1080i, 720p, 480p, or 480i.
	Some TVs can only support certain display formats. Check your TV User Guide for more information. If you are not using an HDTV, selecting a format other than 480i will cause the on-screen display to go blank. If this happens you can still view your settings on the LED panel to change the format back to 480i.
4:3 Override	Selects the output format for 4:3 standard definition pictures. Defaults to 480i.
	Options are OFF, 480i or 480p. If YPrPb Output is set to 480i, this setting cannot be changed.
	This setting provides the ability to specify how 4:3 pictures are to be displayed on your TV. Most TV programming is 4:3 aspect ratio (square).
	Selecting OFF will display regular TV programs that are 4:3 aspect ratio in widescreen format. If you have a widescreen TV, black bars will be placed on the left and right of the picture to fit your screen. Selecting OFF when you have a 4:3 TV Type may result in a small picture and black bars around the picture.
	Selecting 480i will transmit TV programs that are not high definition in their original 480i format. Some TVs cannot display 480i format on their component video inputs (Y Pb Pr). Check your TV User Guide for more information.
	Selecting 480p will convert TV programs that are not high definition to a higher quality 480p format. Some TVs cannot display 480p format on their component video inputs (Y Pb Pr). Check your TV User Guide for more information.

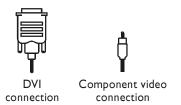
Setting	Description
Closed Caption	Turns closed captions off or on. The LED panel will display the status of the closed captions. Defaults to DISABLED.
	Options are ENABLED or DISABLED.
Pen Size	Selects the font size for closed captions. Defaults to AUTO.
	Options are AUTO, STANDARD, LARGE, or SMALL.
Font	Selects the font style for closed captions. Defaults to AUTO.
Style	Options are AUTO, MONO SERIF, PROPORTION SERIF, MONO NO SERIF, PROPORTION NO SERIF, CASUAL, CURSIVE or SMALL.
Fore- ground Color	Selects the foreground color for closed captions. Defaults to AUTO.
	Options are AUTO, WHITE, BLACK, RED, GREEN, BLUE, YELLOW, MAGENTA, or CYAN.
Fore- ground Opacity	Selects the opacity of the closed captions foreground. Defaults to AUTO.
	Options are AUTO, TRANSPARENT, TRANSLUCENT, SOLID, or FLASHING.
Back- ground	Selects the background color for closed captions. Defaults to AUTO.
Color	Options are AUTO, WHITE, BLACK, RED, GREEN, BLUE, YELLOW, MAGENTA, or CYAN.
Back- ground	Selects the background opacity for closed captions. Defaults to AUTO.
Opacity	Options are AUTO, TRANSPARENT, TRANSLUCENT, SOLID, or FLASHING.
Service Selection	Selects the service to be used for closed captions. Defaults to AUTO.
	Options are AUTO, PRIMARY LANGUAGE, SECONDARY LANGUAGE, 3, 4, 5, or 6.
Settings	Selects the default settings for closed captions (AUTO) or the settings you have configured (USER). Defaults to AUTO.
	Options are AUTO or USER.
Restore Defaults	Resets the on-screen display options to their default settings.

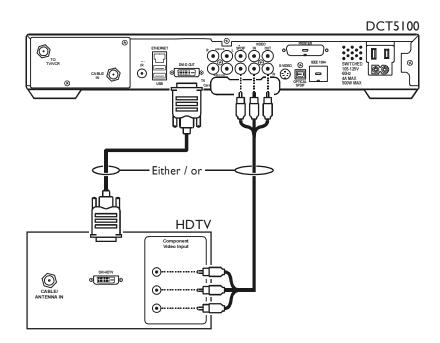
This section describes how to connect the DCT5100 to your home entertainment system.

Instructions and diagrams are included for the following connections to the DCT5100:

- High Definition Television (HDTV)
- Mono TV
- Stereo TV
- Mono TV and Mono VCR
- Mono TV and Stereo VCR
- Stereo TV and Mono VCR
- Stereo TV and Stereo VCR
- Mono TV, Mono VCR and Stereo Receiver or Amplifier
- A/V Receiver, TV and VCR
- Mono TV, VCR and DVD
- Stereo TV, VCR and DVD
- TV, Mono VCR, DVD and Stereo Receiver or Amplifier
- TV, Stereo VCR, DVD and Stereo Receiver or Amplifier
- TV, VCR, DVD and A/V Receiver or Amplifier







# **Connecting HDTV**

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect the component video cables supplied with the DCT5100 to the Y, Pb, and Pr connectors on your HDTV and DCT5100.

Or

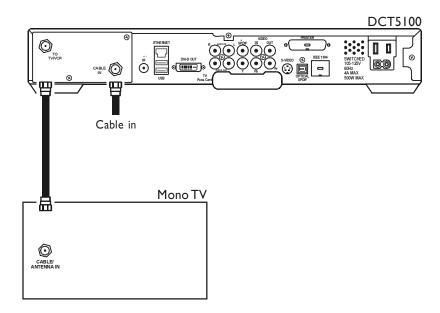
Connect a DVI cable to the DVI-D OUT connector on the DCT5100 and the DVI-HDTV connector on your TV.

These connections replace **only** the video connection between the DCT5100 and the TV described in the following sections. Continue to connect audio and video cables for other equipment as described in those sections.

For information on configuring your HDTV settings, see "Configuring Your DCT5100 for HDTV".







# Connecting a Mono TV

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a second RF coaxial cable (not supplied) to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the TV.

This connection method does not support high definition video. For more information, see the High Definition Television section.





RF (75 ohm) connection



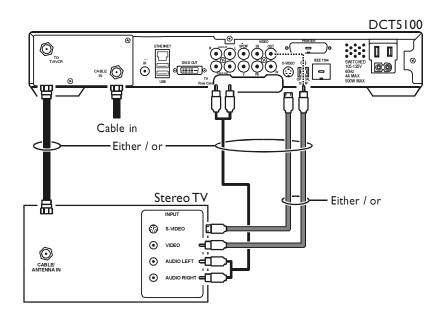
S-Video connection



Video connection



Audio connection



# **Connecting a Stereo TV**

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a second RF coaxial cable (not supplied) to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the TV.

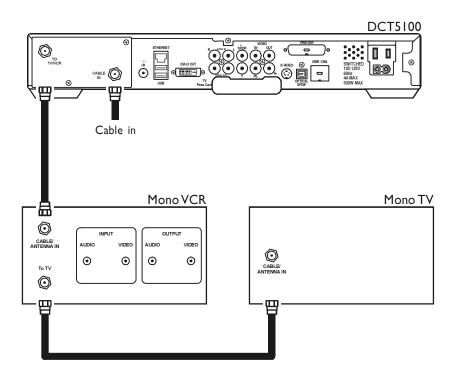
Or

Connect the stereo audio cable supplied with the DCT5100 to the AUDIO R and L connectors on the DCT5100 and the AUDIO LEFT and AUDIO RIGHT connectors on the stereo TV. Connect a video cable to the VIDEO OUT connector on the DCT5100 and the INPUT VIDEO on the TV or an S-video cable to the S-VIDEO connectors on the DCT5100 and the TV.

This connection method does not support high definition video. For more information, see the High Definition Television section.







# Connecting a Mono TV and Mono VCR

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a second RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the mono VCR.
- 3 Connect a third RF coaxial cable to the TO TV connector on the mono VCR and the CABLE/ANTENNA IN connector on the mono TV.

This connection method does not support high definition video. For more information, see the High Definition Television section.

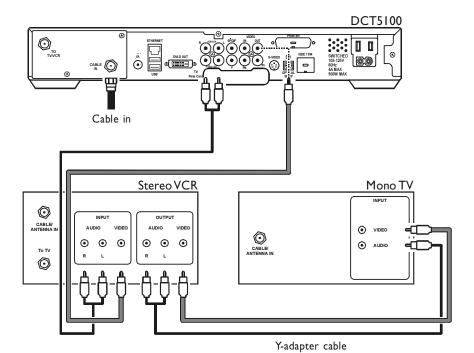








Video Audio connection connection



# Connecting a Mono TV and Stereo VCR

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the stereo VCR. Connect a RF coaxial cable to the TO TV connector on the stereo VCR and the CABLE/ANTENNA IN connector on the mono TV. See the illustration on page 24 for these connections.

Or

The following are optional connections that enable stereo recording from VCR line inputs with a stereo TV or home theater:

- Connect the stereo audio cable supplied with the DCT5100 to the AUDIO OUT R and L connectors on the DCT5100 and the INPUT AUDIO R and L connectors on the stereo VCR.
- Connect a video cable to the VIDEO OUT connector on the DCT5100 and the INPUT VIDEO connector on the stereo VCR.
- Connect a stereo audio cable with a Y-adapter to the AUDIO OUTPUT connector on the Stereo VCR to the AUDIO IN connector on the TV.
- Connect a video cable to the OUTPUT VIDEO connector on the stereo VCR and the INPUT VIDEO connector on the stereo TV.

This connection method does not support high definition video. For more information, see the High Definition Television section.





RF (75 ohm) connection



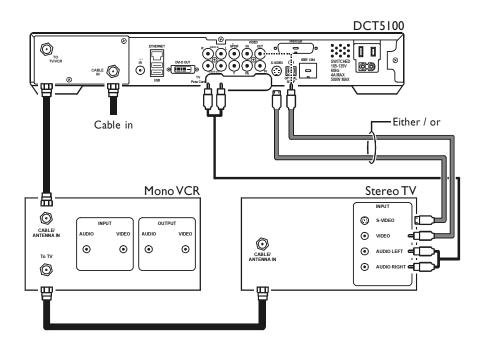
connection



Video connection



Audio connection



# Connecting a Stereo TV and Mono VCR

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a RF coaxial cable the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the mono VCR.
- 3 Connect a RF coaxial cable to the TO TV connector on the mono VCR and the CABLE/ANTENNA IN connector on the stereo TV.
- 4 Connect the stereo audio cable supplied with the DCT5100 to the AUDIO OUT R and L connectors on the DCT5100 and the INPUT AUDIO RIGHT and LEFT connectors on the stereo TV.
- 5 Connect a video cable to the VIDEO OUT connector on the DCT5100 and the INPUT VIDEO connector on the stereo TV.

Or

Connect an S-video cable to the S-VIDEO connector on the DCT5100 and the INPUT S-VIDEO connector on the stereo TV.

Or

Connect the component video cable to Y, Pb, and Pr component video connectors on the DCT5100 to the component video connections on the TV. See the High Definition Television section for an illustration of these connections.

Use the Antenna/Cable input on your TV to watch programs from the VCR and the video input on your TV to watch programs from the DCT5100. This provides improved audio and video quality when watching cable TV on the DCT5100 rather than through the VCR.

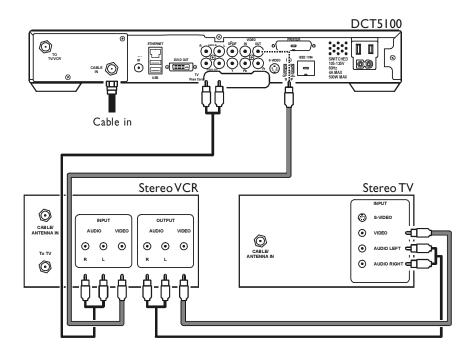








Video Audio connection

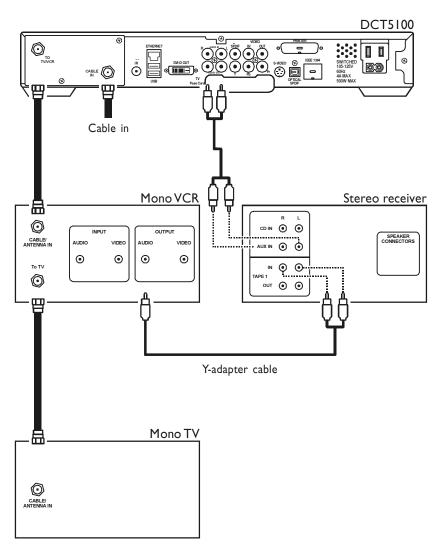


## Connecting a Stereo TV and Stereo VCR

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect the stereo audio cable supplied with the DCT5100 to the AUDIO OUT R and L connectors on the DCT5100 and the INPUT AUDIO R and L connectors on the stereo VCR.
- 3 Connect a video cable to the VIDEO OUT connector on the DCT5100 and the INPUT VIDEO connector on the stereo VCR.
- 4 Connect a stereo audio cable to the OUTPUT AUDIO R and L connectors on the Stereo VCR and the INPUT AUDIO RIGHT and LEFT connectors on the stereo TV.
- Connect a video cable to the OUTPUT VIDEO connector on the stereo VCR and the INPUT VIDEO connector on the stereo TV.







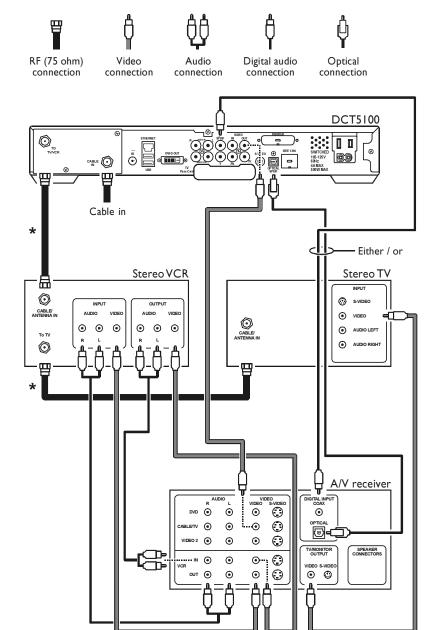
# Connecting a Mono TV, Mono VCR and Stereo Receiver or Amplifier

- Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect the RF coaxial cable supplied with the DCT5100 to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the mono VCR.
- Connect a RF coaxial cable to the TO TV connector on the mono VCR and the CABLE/ANTENNA IN connector on the mono TV.
- 4 Connect the stereo audio cable supplied with the DCT5100 to the AUDIO OUT R and L connectors on the DCT5100 and the AUX IN R and L connectors on the stereo receiver.
- Connect a stereo audio cable with a Y-adapter to the OUTPUT AUDIO connector on the Mono VCR and the TAPE IN R and L connectors on the stereo receiver.

This connection method does not support high definition video. For more information, see the High Definition Television section.

When watching cable TV, set the Stereo Receiver to Aux In. When watching programs from the VCR, set the Stereo Receiver to Tape In.





### Connecting an A/V Receiver, TV and VCR

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- Connect the coaxial digital audio cable supplied with the DCT5100 or an optical digital audio cable to the SPDIF connector or OPTICAL SPDIF connector on the DCT5100 and the OPTICAL or DIGITAL INPUT COAX connector or OPTICAL on the A/V receiver.
- 3 Connect a video cable to the VIDEO OUT connector on the DCT5100 and the CABLE/TV VIDEO connector on the A/V receiver.
- Connect a stereo audio cable to the VCR AUDIO OUT R and L connectors on the A/V receiver and the INPUT AUDIO R and L connectors on the stereo VCR.
- Connect a stereo audio cable to the OUTPUT AUDIO OUT R and L connectors on the stereo VCR and the VCR AUDIO IN R and L connectors on the A/V receiver.
- Connect a video cable to the INPUT VIDEO connector on the stereo VCR and the VIDEO VCR OUT connector on the A/V receiver.
- 7 Connect a video cable to the OUTPUT VIDEO connector on the stereo VCR and the VIDEO VCR IN connector on the A/V receiver.
- 8 Connect a video cable to the INPUT VIDEO connector on the stereo TV and the TV/MONITOR OUTPUT VIDEO connector on the A/V receiver.

When using the Digital Audio output (OPTICAL or SPDIF), the left / right baseband audio connections to the A/V receiver are not needed.

If your equipment supports it, S-video connections may be used in place of the standard RCA video connections. In most cases, S-video offers a higher level of standard definition video quality than RCA video.

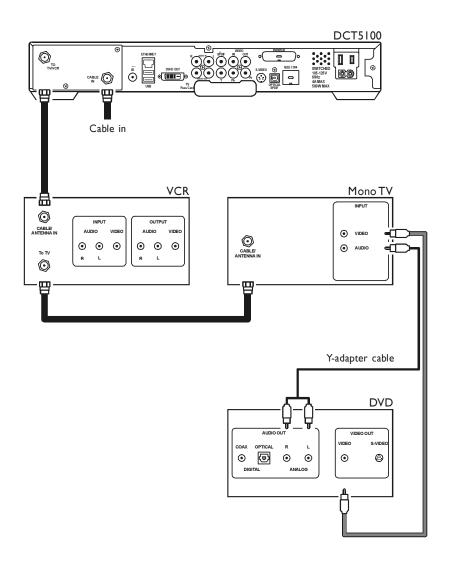
The optional connections marked with an \* allow you to use the DCT5100 and TV without powering-on the VCR and A/V Receiver:

- Connect a RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the stereo VCR.
- Connect a RF coaxial cable to the TO TV connector on the stereo VCR and the CABLE/ANTENNA IN connector on the stereo TV.

To connect high definition video, see the High Definition Television section.







# Connecting a Mono TV, VCR and DVD

This cable configuration may be used for a mono or stereo VCR because the VCR audio jacks are not used.

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- Connect a RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the VCR.
- 3 Connect a RF coaxial cable to the TO TV connector on the VCR and the CABLE/ANTENNA IN connector on the mono TV.
- 4 Connect a stereo audio cable with a Y-adapter to the AUDIO OUT ANALOG R and L connectors on the DVD and the INPUT AUDIO connector on the mono TV.
- **5** Connect a video cable to the VIDEO OUT VIDEO connector on the DVD and the INPUT VIDEO connector on the mono TV.









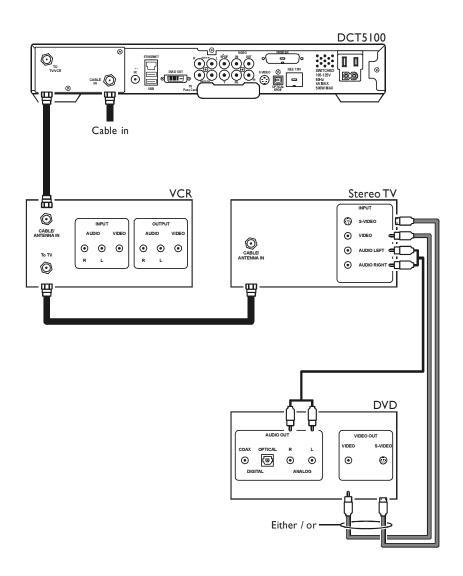


connection

connection

connection

Audio connection



# Connecting a Stereo TV, VCR and DVD

This cable configuration may be used for a mono or stereo VCR, because the VCR audio and video jacks are not used.

If your TV supports multiple sets of video and audio inputs (such as VID1, VID2, etc.), see the diagram Connecting a Stereo TV and Stereo VCR to connect your DCT5100, VCR and TV. When you have completed those connections, refer to the diagram illustrated here to connect your DVD to your TV.

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the VCR.
- 3 Connect a RF coaxial cable to the TO TV connector on the VCR and the CABLE/ANTENNA IN connector on the stereo TV.
- 4 Connect a stereo audio cable to the INPUT AUDIO LEFT and RIGHT connectors on the stereo TV and the AUDIO OUT ANALOG R and L connectors on the DVD.
- Connect a video cable to the INPUT VIDEO connector on the stereo TV and the VIDEO OUT VIDEO connector on the DVD.

Or

Connect an S-video cable to the INPUT S-VIDEO connector on the stereo TV and the VIDEO OUT S-VIDEO connector on the DVD.

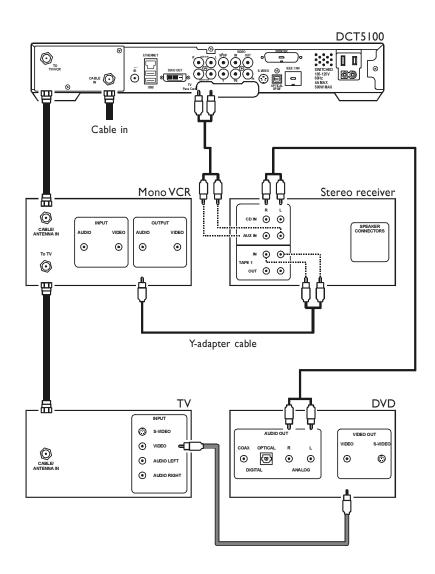








Audio connection



# Connecting a TV, Mono VCR, DVD and Stereo Receiver or Amplifier

This cable configuration may be used for a mono or stereo TV because the TV audio and video jacks are not used.

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a RF coaxial cable to the CABLE/ANTENNA IN connector on the VCR and the TO TV/VCR connector on the DCT5100.
- 3 Connect a RF coaxial cable to the TO TV connector on the VCR and the CABLE/ANTENNA IN connector on the stereo TV.
- 4 Connect a stereo audio cable to the AUDIO OUT R and L connectors on the DCT5100 and the AUX IN R and L connectors on the stereo receiver or amplifier.
- Connect a stereo audio cable with a Y-adapter to the OUTPUT AUDIO connector on the mono VCR and the TAPE IN connectors on the stereo receiver or amplifier.
- Connect a stereo audio cable to the CD IN R and L connectors on the stereo receiver or amplifier and the AUDIO OUT ANALOG R and L connectors on the DVD.
- 7 Connect a video cable to the VIDEO OUT VIDEO connector on the DVD and the INPUT VIDEO connector on the TV.

To watch TV or view VCR recordings, the TV must be tuned to the DCT5100 and VCR output channel, typically 3 or 4.

To watch a DVD, the TV VIDEO input must be used.

To listen to the VCR through the stereo, a Y-cable adapter must be inserted to the stereo jacks of the receiver and the monophonic jack of the VCR.





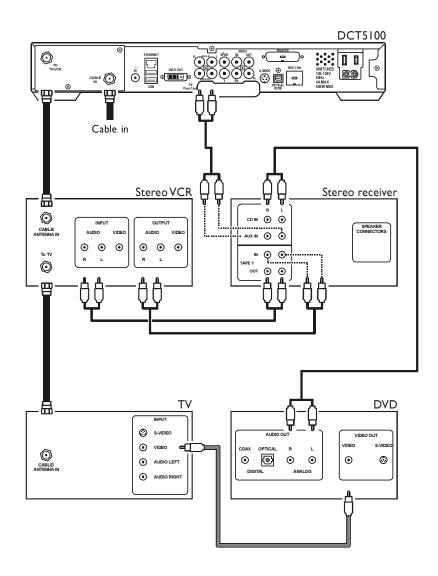




RF (75 ohm) connection

connection

Audio connection



# Connecting a TV, Stereo VCR, DVD and Stereo Receiver or Amplifier

This cable configuration may be used for a mono or stereo TV because the TV audio and video jacks are not used.

- Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- 2 Connect a RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the stereo VCR.
- 3 Connect a RF coaxial cable to the TO TV connector on the stereo VCR and the CABLE/ANTENNA IN connector on the TV.
- 4 Connect the stereo audio cable supplied with the DCT5100 to the AUDIO OUT R and L connectors on the DCT5100 and the AUX IN R and L connectors on the stereo receiver or amplifier.
- Connect a stereo audio cable to the OUTPUT AUDIO R and L connectors on the stereo VCR and the TAPE I IN R and L connectors on the stereo receiver or amplifier.
- Connect a stereo audio cable to the CD IN R and L connectors on the stereo receiver or amplifier and the AUDIO OUT ANALOG R and L connectors on the DVD.
- 7 Connect a video cable to the VIDEO OUT VIDEO connector on the DVD and the INPUT VIDEO connector on the TV.

Or

Connect an S-video cable to the INPUT S-VIDEO connector on the stereo TV and the VIDEO OUT S-VIDEO connector on the DVD (not shown).

To watch TV or view VCR recordings, the TV must be tuned to the DCT5100 and VCR output channel, typically 3 or 4.

To watch a DVD, the TV VIDEO input must be used.



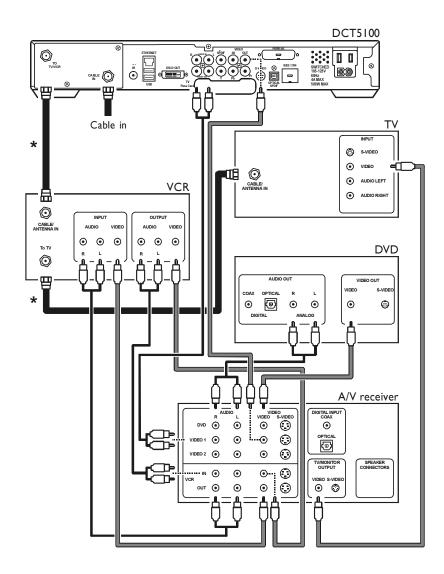






Video connection

Audio connection



# Connecting a TV, VCR, DVD and A/V Receiver or Amplifier

This cable configuration may be used for a mono or stereo TV, because the TV audio and video jacks are not used.

When using a mono VCR with this setup, a stereo audio cable with a Y-cable adapter is needed to connect the mono VCR to the A/V receiver or amplifier.

Please refer to the Audio and Video Options on the following page for more information on this cable configuration.

- 1 Connect the RF coaxial cable supplied with the DCT5100 to the cable wall outlet and the CABLE IN connector on the DCT5100.
- Connect the stereo audio cable supplied with the DCT5100 to the AUDIO OUT R and L connectors on the DCT5100 and the VIDEO I AUDIO R and L connectors on the A/V receiver or amplifier.
- 3 Connect a video cable to the VIDEO OUT connector on the DCT5100 and the VIDEO I VIDEO connector on the A/V receiver or amplifier.
- Connect a stereo audio cable to the DVD AUDIO R and L connectors on the A/V receiver or amplifier and the AUDIO OUT ANALOG R and L connectors on the DVD.
- Connect a video cable to the DVD VIDEO connector on the A/V receiver or amplifier and the VIDEO OUT VIDEO connector on the DVD.
- 6 Connect a stereo audio cable to the VCR IN AUDIO R and L connectors on the A/V receiver or amplifier and the OUTPUT AUDIO R and L connectors on the VCR.
- 7 Connect a video cable to the VCR IN VIDEO connector on the A/V receiver or amplifier and the OUTPUT VIDEO connector on the VCR.
- Connect a stereo audio cable to the VCR OUT AUDIO R and L connectors on the A/V receiver or amplifier and the INPUT AUDIO R and L connectors on the VCR.
- Connect a video cable to the VCR OUT VIDEO connector on the A/V receiver or amplifier and the INPUT VIDEO connector on the VCR.
- 10 Connect a video cable to the TV/MONITOR OUTPUT connector on the A/V receiver or amplifier and the INPUT VIDEO connector on the TV.



The optional connections marked with an \* allow you to use the DCT5100 and TV without powering-on the VCR and A/V Receiver:

- Connect a RF coaxial cable to the TO TV/VCR connector on the DCT5100 and the CABLE/ANTENNA IN connector on the VCR.
- Connect a RF coaxial cable to the TO TV connector on the VCR and the CABLE/ANTENNA IN connector on the TV.

This connection method does not support high definition video. For more information, see the High Definition Television section.

#### **Video Option**

If your equipment supports it, S-video connections may be used in place of the standard RCA video connections. In most cases, S-video offers a higher level of standard definition video quality than RCA video.

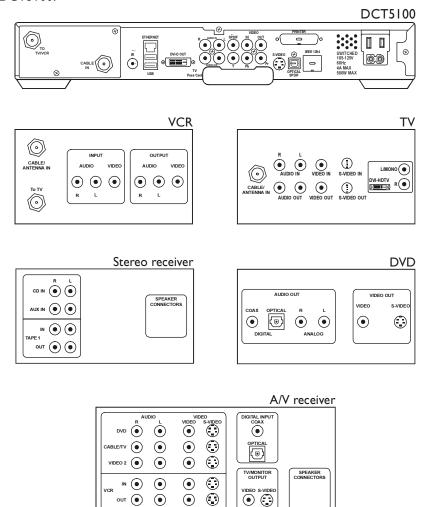
#### **Audio Option**

If your equipment supports it, the optical (OPTICAL SPDIF) or coaxial digital (SPDIF) audio outputs may be used in place of the stereo audio outputs (AUDIO R AND L). In most cases these outputs offer a higher level of audio quality, including support for Dolby Surround Sound.

#### RECORDING YOUR CONNECTIONS

Use this diagram to record connections between your home entertainment components. Later, you can use this diagram to reconnect your system if you move the equipment or add new equipment.

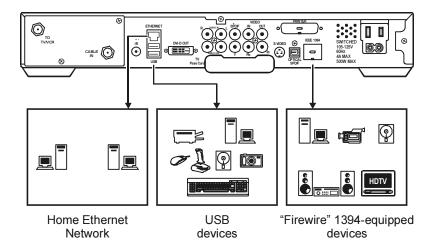
Disconnect the power from the DCT5100 before connecting or changing cable connections. Do not place another component or object on top of the DCT5100.



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## DATA DEVICES



Do not attempt to connect data devices without contacting your service provider. Advanced data features require the proper application and network infrastructure to operate.

#### DCT5100 User Guide

#### **Data Features**

In addition to high quality audio and video, the DCT5100 delivers high-speed data services such as Internet access, e-mail, IP Telephony, E-Commerce, and home banking. The integrated cable modem, USB and Ethernet ports will also allow you to network PCs, printers and digital audio/video devices.

Your DCT5100 may be equipped with the interface connections illustrated, but their functionality depends on the services offered by your service provider. Contact your service provider to determine the applications and functionality supported within your system.



# TROUBLESHOOTING

Before calling your service provider, review this troubleshooting guide. This information is to help you quickly solve a problem. If your problem still exists, contact your service provider.

Problem	Possible Solution
No sound	Press MUTE on the remote control to restore the volume level.
	Check that the stereo is directed to the proper input source.
	Turn your VCR on.
No picture	Check to be sure that all cables are connected properly (hand-tighten if necessary).
	If connected through the baseband RCA video connection, make sure the cables are connected properly.
	If you are watching TV using your VCR, be sure your VCR is on.
	Check that the TV is directed to the proper input source.
Picture or sound is noisy on one channel	Reconnect the cable and hand-tighten if loose.
Sound from only one stereo speaker	Hand-tighten or reconnect the cables properly. Be sure wires are not frayed and plugs are not bent or broken.
No power	Reconnect the power cord. Be sure the DCT5100 is plugged into an outlet that is always live and not a switched outlet from another piece of equipment
Remote control does not work	Press CABLE on the remote control to ensure the remote control is in cable mode.
	Change the batteries in your remote control.
	Be sure that nothing is on the DCT5100 or blocking a clear line of sight to it and the remote control.
Poor audio quality	For best audio quality, use the remote control to set the DCT5100 to approximately 75% of maximum volume level and then adjust the audio levels on the external devices.

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