User Guide

DCT6200 High Definition Cable Receiver







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.

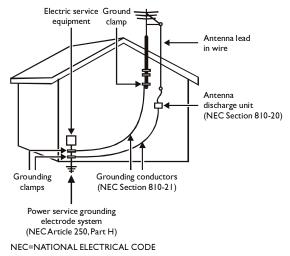
REPAIRS

If you find the unit in need of repair, call Motorola Support at 1-866-668-2271 or 1-866-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



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 laundry-tub, 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

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.

IMPORTANT SAFETY INSTRUCTIONS

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.

23 Heat

This product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

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.

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.

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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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OVERVIEW

Congratulations on purchasing the Motorola DCT6200 High Definition Cable Receiver for analog, digital cable, and high definition (HD) programming. The DCT6200 offers the following standard features*:

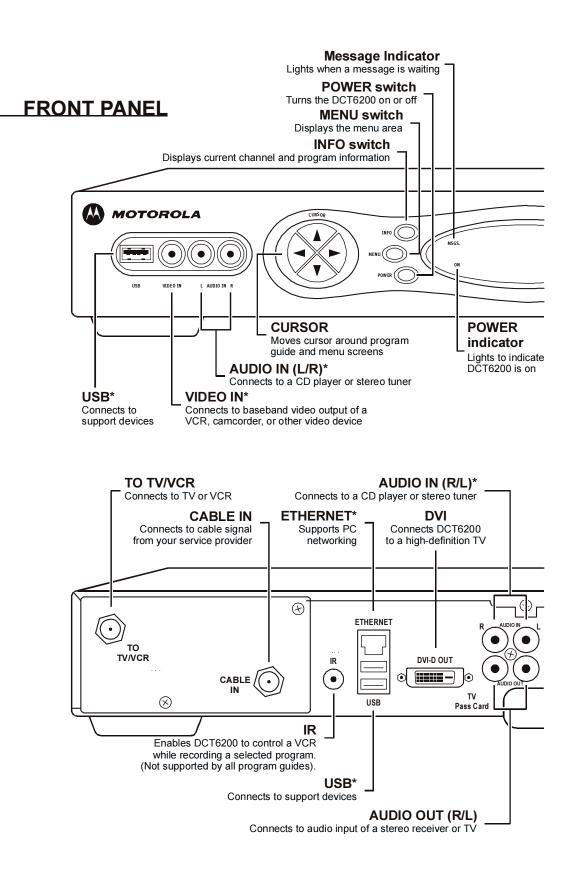
- Interactive digital cable receiver enables both analog and digital cable programming
- Integrated high definition decoder with YPbPr component video output
- Digital Visual Interface (DVI) connector
- IEEE 1394 digital audio/video output
- PCM, AC-3, Dolby Digital[®] and Dolby Pro Logic[®] audio capability
- 54-860 MHz tuner
- DOCSIS 1.0 / 1.1 capable integrated cable modem
- Full feature access from front panel
- One front and two rear USB 1.1 ports
- LED display with IR receiver for remote control or keyboard
- Remote control with batteries

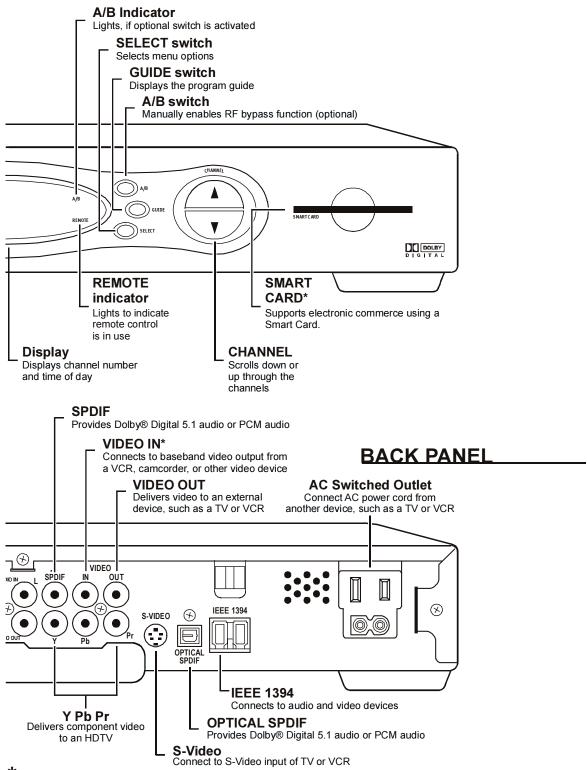
* Cable, high definition and interactive services such as video-on-demand and interactive program guides are services that may require a subscription from your local cable provider. Services may vary by provider. Features such as a smart card interface, DOCSIS and USB are features added for future use by your cable provider and may not be activated at time of purchase.

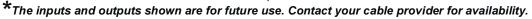
DCT6200 Components

The following items are included with your DCT6200:

- Remote control with batteries
- Coaxial cable
- Audio (Left/Right) cables
- Component (YPbPr) video cables
- DCT6200 User Guide
- DCT6200 Quick Setup Guide
- Warranty Card
- Software License

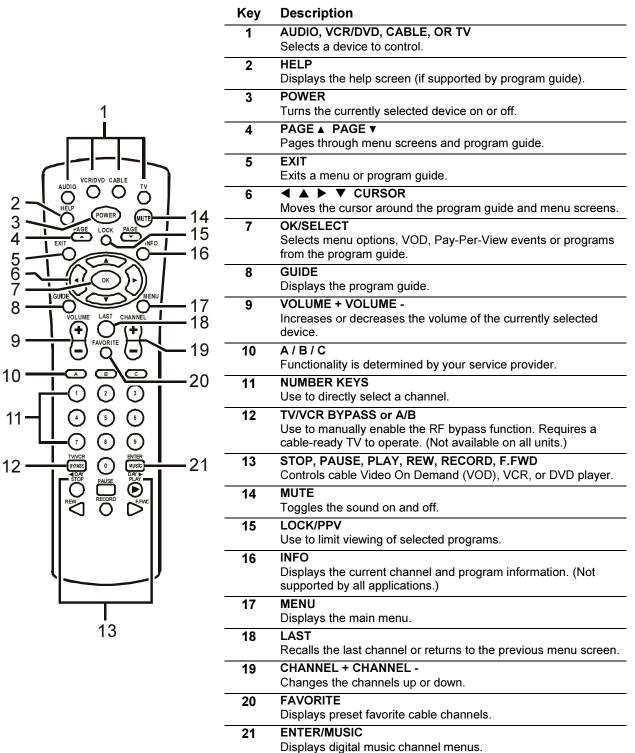






Remote Control

The DRC 450 remote control provides basic control of the DCT6200, TV, VCR, DVD, and audio devices. For programming instructions and remote codes, refer to the DRC 450 User Guide included with your remote control.



GETTING STARTED

Before you connect your DCT6200, be sure to review the following:

- Disconnect power from the DCT6200 before connecting or changing cable connections.
- For basic cable connections, use 75-ohm coaxial cables equipped with F-type connectors.
- A coaxial cable is provided to connect the DCT6200 to your cable wall outlet. A component video cable and left/right audio cables are also provided to connect the DCT6200 to your TV.
- If you are connecting a coaxial cable from the TO TV/VCR connector on the DCT6200 to the coaxial CABLE/ANTENNA IN connector on the TV, you must tune your TV to channel 3 or 4 to view the DCT6200 output. *Connecting the DCT6200 in this manner will remove its high definition video output capability.*

CAUTION!



Do not place anything on top of the DCT6200, especially other home entertainment components. Be sure to provide adequate ventilation to prevent overheating.

CONNECTING YOUR DCT6200

This section describes how to connect the DCT6200 to your home entertainment system. Instructions and diagrams are included for the following connections to the DCT6200:

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

Video Options

Before connecting your TV to the DCT6200, you must determine which type of video connection to use. The DCT6200 offers five different video options. The options, listed in order from highest to lowest video quality, are:

- DVI
- IEEE 1394
- Component video (YPbPr)
- S-Video
- Video (also referred to as composite video)

To determine whether your TV features DVI, IEEE 1394, component video, S-Video, or composite video, check the manual supplied with your TV to determine the best connection available.

High definition video can only be viewed with DVI, IEEE 1394, or component video connections.

DVI, IEEE 1394, and component video allow you to view both high definition (HD) and standard TV programming. Composite video and RF coaxial connections allow you to view only standard definition TV programming.

If your TV has a DVI input, connect to the DVI-D connections on your DCT6200 instead of the IEEE 1394 or component video connections (Y, Pb, and Pr connectors).

If your TV doesn't have a DVI input but does have an IEEE 1394 connector, connect to the IEEE 1394 connection on your DCT6200 instead of the component video connections (Y, Pb, and Pr connectors). The IEEE 1394 is a video *and* audio connection, so no audio connections are required if you are using the IEEE 1394 connection.

If component video connections are not available on your TV, use the S-Video connections.

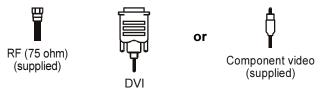
CONNECTING YOUR DCT6200 TO AN HDTV

Video Connections

DVI, IEEE 1394, and component video provide the highest level of picture quality. If your TV has a DVI input, connect to the DVI-D connections on your DCT6200 instead of the component video connections (Y, Pb and Pr connectors).

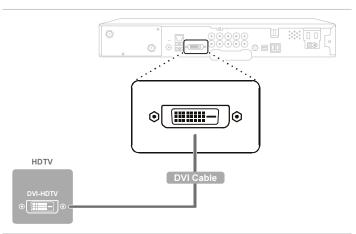
For instructions on connecting for IEEE 1394, see "Connecting your DCT6200 to an HDTV and D-VHS" on page 13.

For the connections described on the following page you will need these cables:



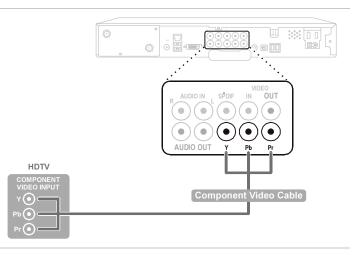
To connect your video connection(s) for HDTV:

- 1 Connect an RF coaxial cable to the cable wall outlet and the CABLE IN connector on the DCT6200.
- **2** Connect an DVI cable to the **DVI-D OUT** connector on the DCT6200 and the **DVI-HDTV** connector on your TV:



Or

Connect the component video cables to the Y, Pb, and Pr connectors on your DCT6200 and HDTV:



3 Proceed to the instructions for "Audio Connections".

CONNECTING YOUR DCT6200 TO AN HDTV

Audio Connections

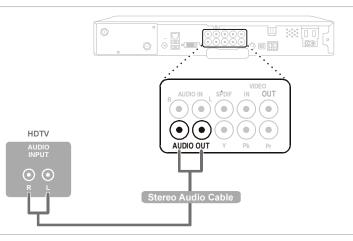
If you have a home theater system with an A/V receiver, see the instructions "Audio Connections for an A/V Receiver" on page 12.

For the connections described below you will need the following cables:



To connect your audio connections for HDTV:

• Connect the stereo audio cable to the AUDIO OUT R and L connectors on the DCT6200 and the AUDIO INPUT RIGHT and LEFT connectors on the HDTV:



Audio Connections for an A/V Receiver

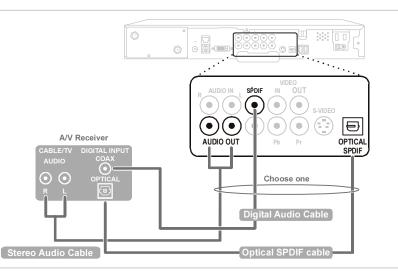
There are three options available for audio connections to your A/V receiver:

- Optical (OPTICAL SPDIF)
- Coaxial (SPDIF)
- Stereo audio (AUDIO R and L)

If your equipment supports it, the optical (OPTICAL SPDIF) or coaxial (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 5.1 surround sound.

To connect your audio connections for an A/V receiver, choose one of the following:

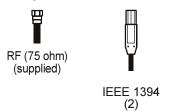
- **Optical SPDIF**: Connect the optical SPDIF cable to the **OPTICAL SPDIF** connector on the DCT6200 and the **OPTICAL** connector on the A/V receiver.
- **SPDIF**: Connect the digital audio cable to the **SPDIF** connector on the DCT6200 and the **DIGITAL INPUT COAX** connector on the A/V receiver.
- **Stereo audio**: Connect the stereo audio cable to the AUDIO OUT R and L connectors on the DCT6200 and the AUDIO RIGHT and AUDIO LEFT connectors on the A/V receiver.



CONNECTING YOUR DCT6200 TO AN HDTV AND D-VHS

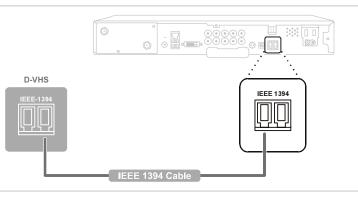
To record high definition programming, you must have a D-VHS digital VCR and connect to the IEEE 1394 connector on your DCT6200.

For the connections described below you will need the following cables:



To connect your DCT6200 to an HDTV and D-VHS digital VCR:

- **1** Connect an RF coaxial cable to the cable wall outlet and the CABLE IN connector on the DCT6200.
- 2 Connect an IEEE 1394 cable to the IEEE 1394 connectors on your DCT6200 and D-VHS digital VCR.



3 Connect an IEEE 1394 cable to the **IEEE 1394** connectors on your D-VHS digital VCR and HDTV.

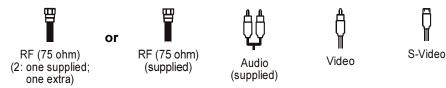
The IEEE 1394 is a video *and* audio connection so no audio connections are required if you are using the IEEE 1394 connection.

On-screen graphics will not be displayed when you are using the IEEE 1394 connection on the rear panel of the DCT6200.



CONNECTING YOUR DCT6200 TO A STANDARD DEFINITION STEREO TV

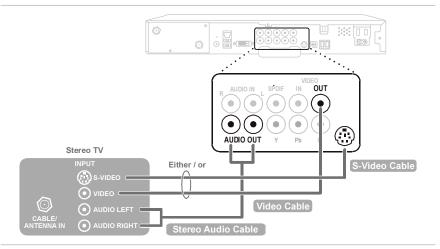
For the connections described below you will need the following cables:



- 1 Connect an RF coaxial cable to the cable wall outlet and the CABLE IN connector on the DCT6200.
- 2 Connect a second RF coaxial cable to the TO TV/VCR connector on the DCT6200 and the CABLE/ANTENNA IN connector on the TV.

Or

Connect the stereo audio cable to the AUDIO OUT R and L connectors on the DCT6200 and the INPUT AUDIO RIGHT and LEFT connectors on the stereo TV. Connect a video cable to the VIDEO OUT connector on the DCT6200 and the INPUT VIDEO on the TV *or* an S-video cable to the **S-VIDEO** connectors on the DCT6200 and the TV.



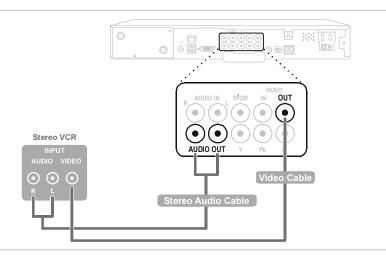
This video connection method doesn't support High Definition video. For more information, see "Connecting your DCT6200 to an HDTV" on page 9.

CONNECTING YOUR DCT6200 TO A STANDARD DEFINITION STEREO TV AND STEREO VCR

For the connections described below you will need the following cables:

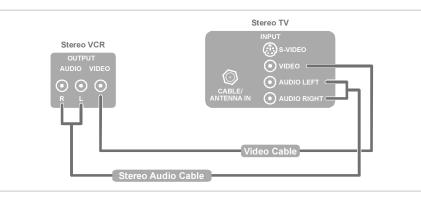


- 1 Connect an RF coaxial cable to the cable wall outlet and the CABLE IN connector on the DCT6200.
- 2 Connect a stereo audio cable to the AUDIO OUT R and L connectors on the DCT6200 and the INPUT AUDIO R and L connectors on the stereo VCR, as illustrated below.
- **3** Connect a video cable to the **VIDEO OUT** connector on the DCT6200 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, as illustrated below.

Connect a video cable to the **OUTPUT VIDEO** connector on the stereo VCR and the **INPUT VIDEO** connector on the stereo TV.



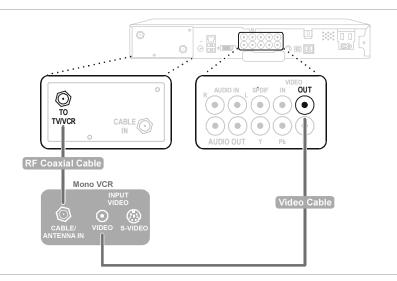
This video connection method doesn't support high definition video. For more information, see "Connecting your DCT6200 to an HDTV" on page 9.

CONNECTING YOUR DCT6200 TO A STANDARD DEFINITION STEREO TV AND MONO VCR

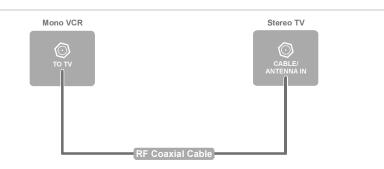
For the connections described below you will need the following cables:



- 1 Connect an RF coaxial cable to the cable wall outlet and the CABLE IN connector on the DCT6200.
- 2 Connect an RF coaxial cable to the TO TV/VCR connector on the DCT6200 and the CABLE/ANTENNA IN connector on the VCR, as shown below.
- **3** Connect a video cable to the **VIDEO OUT** connector on the DCT6200 and the **INPUT VIDEO** connector on the VCR:



4 Connect an RF coaxial cable to the TO TV connector on the VCR and the CABLE/ANTENNA IN connector on the stereo TV:



This video connection method doesn't support high definition video. For more information, see "Connecting your DCT6200 to an HDTV" on page 9.

CONNECTING YOUR DCT6200 TO AN A/V RECEIVER, STANDARD DEFINITION TV, AND STEREO VCR

If your equipment supports it, the optical (OPTICAL SPDIF) or coaxial (SPDIF) audio outputs may be used in place of the stereo audio outputs (AUDIO R and L) described below. In most cases these outputs offer a higher level of audio quality, including support for 5.1 surround sound.

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

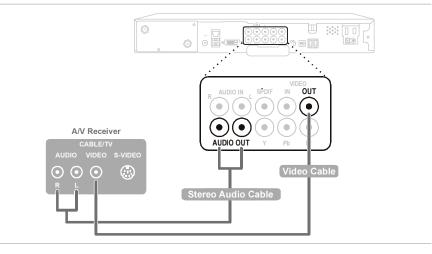
This video connection method doesn't support high definition video. For more information, see "Connecting your DCT6200 to an HDTV" on page 9.

For the connections described below you will need the following cables:



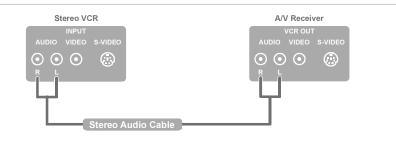
To connect your DCT6200 to your A/V receiver, TV and stereo VCR, first connect your DCT6200 to the A/V receiver:

- 1 Connect an RF coaxial cable to the cable wall outlet and the CABLE IN connector on the DCT6200.
- 2 Connect a stereo audio cable to the AUDIO OUT R and L connectors on the DCT6200 and the CABLE/TV AUDIO R and L connectors on the A/V receiver, as illustrated below.
- **3** Connect a video cable to the **VIDEO OUT** connector on the DCT6200 and the **CABLE/TV VIDEO** connector on the A/V receiver.

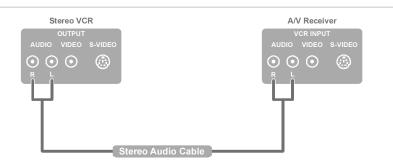


Next, connect your stereo VCR to the A/V Receiver:

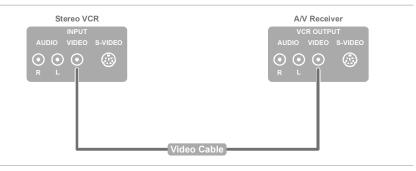
4 Connect a stereo audio cable to the INPUT AUDIO R and L connectors on the stereo VCR and the VCR AUDIO OUT R and L connectors on the A/V receiver:



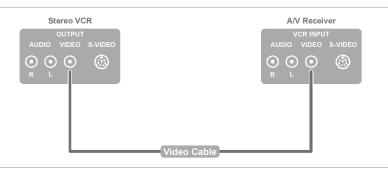
5 Connect a stereo audio cable to the **OUTPUT AUDIO R** and L connectors on the stereo VCR and the **VCR INPUT AUDIO R** and L connectors on the A/V receiver, as shown below:



6 Connect a video cable to the INPUT VIDEO connector on the stereo VCR and the VCR OUTPUT VIDEO connector on the A/V receiver.



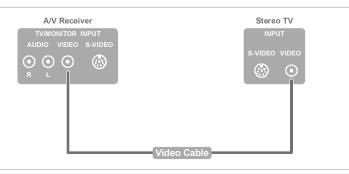
7 Connect a video cable to the **OUTPUT VIDEO** connector on the stereo VCR and the **VCR INPUT VIDEO** connector on the A/V receiver.





Finally, connect your A/V receiver to your TV:

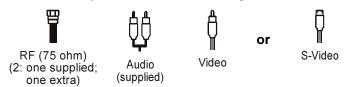
8 Connect a video cable to the TV/MONITOR OUTPUT video connector on the A/V receiver and the INPUT VIDEO connector on the stereo TV:



CONNECTING YOUR DCT6200 TO A STANDARD DEFINITION STEREO TV, MONO/STEREO VCR, AND DVD

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 DCT6200, VCR and TV. When you have completed those connections, refer to the diagram illustrated here to connect your DVD to your TV.

For the connections described below you will need the following cables:



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

- 1 Connect an RF coaxial cable to the TO TV/VCR connector on the DCT6200 and the CABLE/ANTENNA IN connector on the VCR.
- 2 Connect an RF coaxial cable to the TO TV connector on the VCR and the CABLE/ANTENNA IN connector on the stereo TV.
- **3** Connect a stereo audio cable to the INPUT AUDIO RIGHT and LEFT connectors on the stereo TV and the AUDIO OUT ANALOG R and L connectors on the DVD.
- 4 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.

This video connection method doesn't support high definition video. For more information, see "Connecting your DCT6200 to an HDTV" on page 9.

SETTING UP YOUR NEW DCT6200 FOR DIGITAL CABLE SERVICES

Please take a few minutes to read through these pages before plugging in your DCT6200 for the first time.

After you have connected your DCT6200 to your home entertainment devices, a few simple steps are required before you can enjoy all the new services your DCT6200 has to offer. These steps are described in this section and include:

- Activating your DCT6200
- Calling your local cable operator for authorization
- Optimizing the DCT6200 for your TV

Please connect the DCT6200 to your other home entertainment devices before proceeding with the steps below. See the connection diagrams under "Connecting Your DCT6200" for the appropriate connections for your home entertainment system.

Activating Your DCT6200

1 After you have connected your DCT6200 to your other home entertainment devices, plug the power cord supplied with your DCT6200 into the DCT6200 power inlet and your wall outlet.

After a few moments **HUNT** appears in the front panel LED, and then **Fr 1**. This indicates the DCT6200 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.

2 After the DCT6200 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.

3 When 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.

Now proceed to the next step: calling your cable operator.

Calling Your Cable Operator for Authorization

To receive programming and digital cable services, call your local cable service provider.

1 Obtain your DCT6200'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 DCT6200 as well as on the unit itself. The Serial Number consists of twelve characters beginning with *GI*. The Unit Address consists of 16 numbers proceeded by *UA*.

2 Turn on your DCT6200 by pressing **POWER** on the front panel.

0 is displayed in the LED, indicating the software download was successful and your DCT6200 is ready to be authorized for service.

3 Call your cable operator.

Your cable operator will record your billing information and authorize your DCT6200 to operate on their system. This process may take up to 30 minutes (or longer if your cable operator is experiencing high demand).

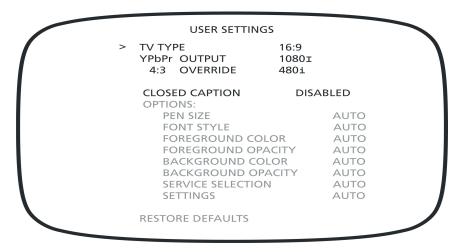
The final step is to tailor your DCT6200 to the capabilities of your TV and optimize your HDTV picture.

Optimizing Your HDTV Picture

If you have connected your DCT6200 using a DVI connection, you may skip this step. The DVI connection automatically configures your high definition settings.

You can view and configure your high definition settings on the DCT6200's on-screen menu.

- **1** To access the on-screen menu, power on your TV and power off the DCT6200.
- **2** Press the **MENU** key on the front panel. The on-screen menu is displayed on your TV screen. (Your user settings will also be displayed on the front panel LED of the DCT6200.) An example is shown below:



If the on-screen display menu doesn't appear on your HDTV screen, your TV may not support the default standard definition setting (480i). Use the DCT6200 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:

- The ► key indicates the position of the cursor
- 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
- **3** The first user setting is **TV Type**. This selection tells the DCT6200 what type of TV you have and how you prefer to watch widescreen programming.

Press the ► arrow key to select the TV type:

Select	If you have
16:9	A wide screen TV. This is the default setting.
4:3 LETTERBOX	A standard TV and you prefer to watch widescreen programming in its original aspect ratio (letterbox format)
4:3 PAN/SCAN	A standard TV and you prefer to watch widescreen programming that is cropped to fill your screen

4 Press the ▼ key to select **YPbPr Output**. YPbPr Output indicates the picture resolution you prefer when watching high definition programming.

To get the most out of your high definition viewing experience, refer to your TV User Guide to determine which format your TV supports.

- 5 Press the ► arrow key to select the YPbPr output setting. Be sure to select the optimal picture resolution that your TV can support. The choices, listed in order from highest to lowest picture resolution, are:
 - 1080i
 - 720p
 - 480p
 - 480i

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.

6 Press the ▼ key to select 4:3 Override. 4:3 Override indicates how 4:3 standard definition programming will be displayed on your TV screen.

If YPrPb Output is set to 480i, this setting cannot be changed.

- 7 Press the ► arrow key to select the 4:3 Override setting:
 - OFF Transmits standard definition TV programs using the picture resolution specified in YPbPr Output Type.
 - **480i** Transmits standard definition TV programs in their original 480i format. This is the default setting.

Some TVs cannot display 480i format on their component video inputs (YPbPr). Check your TV User Guide for more information.

Note: If your DCT6200 is connected to your VCR and you record programming using your VCR, setting 4:3 Override to 480i will cause your VCR to record any graphic overlays (program guides, closed captions, on-screen menus) that were displayed during the recorded program, regardless of the YPbPr Output and video output combinations.

480p Converts standard definition TV programs to a higher quality 480p format.

Some TVs cannot display 480p format on their component video inputs (YPbPr). Check your TV User Guide for more information.

8 Press **POWER** or **MENU** to exit the on-screen menu and save your selection.

You've finished setting up your DCT6200 to receive digital cable services! Proceed to "Operation" on the following pages for helpful information about using your DCT6200.

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 DCT6200 before connecting or changing cable connections. Do not place another component or object on top of the DCT6200.

DCT6200

DVD

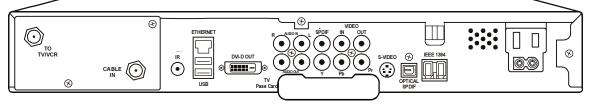
S-VIDEC

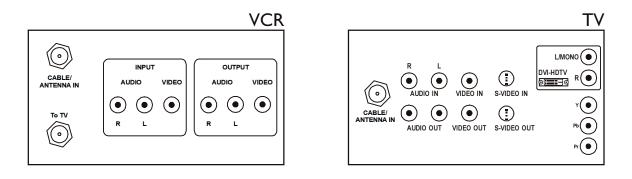
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VIDEO OUT

VIDEO

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AUDIO OUT

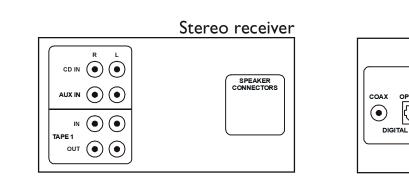
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ANALOG

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A/V receiver VIDEO VIDEO S-VIDEO DIGITAL INPUT COAX AUDIO DVD (\bullet) \odot (\bullet) ullet \bigcirc \odot OPTICAL CABLE/TV \bullet (•) $\mathbf{\bullet}$ \bigcirc (\bullet) VIDEO 2 TV/MONITOR OUTPUT SPEAKER CONNECTORS \bigcirc \odot \odot IN \bullet VCR VIDEO S-VIDEO \bigcirc оит 💽 (\bullet) (\bullet) \odot

OPERATION

After your DCT6200 is connected to your home entertainment system and set up to receive digital cable services, you're ready to enjoy digital and analog cable programming. Simply use the remote control supplied with your DCT6200 to change channels, view program information, and navigate the on-screen menus.

If you encounter any problems while operating your DCT6200, please refer to the Troubleshooting guide at the back of this manual.

Turning Power On and Off

Press **POWER** on the front panel to turn the DCT6200 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 DCT6200, 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 DCT6200 to approximately 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 (IPG) 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.

On-Screen Graphics

The DCT6200 can generate graphics that overlay the video programming or fill the entire television screen. Common examples include on-screen menus (such as the User Setting menu), closed captions, and interactive program guides. The DCT6200 overlays these graphics whenever you open a menu, enable closed captions, or scroll through a program grid.

On-screen graphics are not available on all DCT6200 YPbPr output setting and video output combinations:

- If the DCT6200 is set to **1080i**, **720p**, or **480p** YPbPr Output, graphics are only available on the high definition video connections (DVI and YPBPR on the rear panel of the DCT6200)
- If the DCT6200 is set to **1080i**, **720p**, or **480p** YPbPr Output and you are using S-VIDEO, composite VIDEO or RF coaxial (TO TV/VCR) connections, no graphics will appear on your screen
- If the DCT6200 is set to **480i** YPbPr Output, graphics are available on all video connections

On-screen graphics will not be displayed when you are using the IEEE 1394 connection on the rear panel of the DCT6200.

The YPbPr Output setting can be configured from the on-screen menu.

Important Information About the 4:3 Override Feature

The 4:3 Override feature enables you to specify a different output mode for high-definition (YPbPr) programming and standard definition (4:3) programming. If the 4:3 Override is set to 480i and you tune to a 4:3 standard definition channel, the DCT6200 displays graphics overlays on all outputs even if the YPbPr Output setting is 1080i, 720p, or 480p.

If your DCT6200 is connected to your VCR and you record programming using your VCR, setting 4:3 Override to 480i will cause your VCR to record any graphic overlays (program guides, closed captions, on-screen menus) that were displayed during the recorded program, regardless of the YPbPr Output and video output combinations.

The 4:3 Override feature can be configured from the on-screen menu.

Closed Captions

To turn on closed captions:

- **1** To access the on-screen menu, power on your TV and power off the DCT6200.
- **2** Press **MENU** on the front panel of the DCT6200. If your TV is on, the on-screen menu is displayed. The user settings will also be displayed on the front panel LED.
- **3** Use the \checkmark and \blacktriangle arrow keys on the remote control or front panel to highlight **Closed Caption**.
- 4 Press the ► arrow key to change Disabled to Enabled.
- 5 Press POWER or MENU to exit the on-screen menu and save your selection.

Additional options are available for closed captions, including font size, colors, and service selections. See "User Options" at the back of this manual for more information on these options.

Overlaying graphics such as closed captions are not available on all DCT6200 YPbPr output setting and video output combinations:

- If the DCT6200 is set to **1080i**, **720p**, or **480p** YPbPr Output, closed captions are only available on the high definition video connections (DVI and YPBPR on the rear panel of the DCT6200)
- If the DCT6200 is set to **1080i**, **720p**, or **480p** YPbPr Output and you are using S-Video, composite video or RF coaxial (TO TV/VCR) connections, no closed captions will appear on your screen
- If the DCT6200 is set to **480i** YPbPr Output, closed captions are available on all video connections

Resetting the User Settings

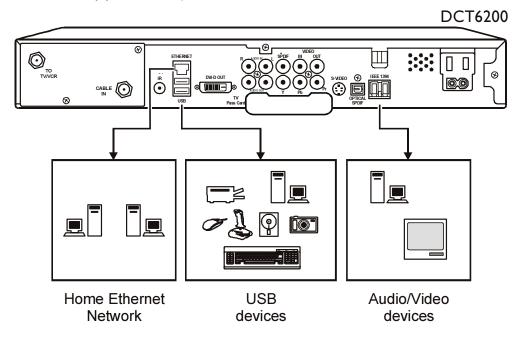
If you have changed your user settings on the on-screen menu and wish to restore the original settings:

- **1** To access the on-screen menu, power on your TV and power off the DCT6200.
- **2** Press **MENU** on the front panel of the DCT6200. If your TV is on, the on-screen menu is displayed. The user settings will also be displayed on the front panel LED.
- **3** Use the **▼** arrow key on the remote control or front panel to highlight **Restore Defaults**.
- 4 Press the ► arrow key to select.
- 5 Press **POWER** or **MENU** to exit the on-screen menu. The default settings are restored.

DATA DEVICES

In addition to high quality audio and video, the DCT6200 has the capability to deliver high-speed data services such as Internet access, e-mail, IP Telephony, E-Commerce, and home banking.

Your DCT6200 may be equipped with the interface connections illustrated, but their functionality depends on the services offered by your service provider.



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

USER OPTIONS

Setting	Description
ТV Туре	Selects the type of TV. The LED panel will display the output type you have selected. Defaults to 16:9.
	Options are 16:9 (for wide screen TVs); 4:3 LETTERBOX or 4:3 PAN/SCAN (for normal TVs).
	4:3 LETTERBOX allows you to view widescreen programming in a letterbox format through the S-video, composite video, or RF video outputs when the DCT6200 is tuned to a widescreen program. 4:3 PAN/SCAN allows you to view widescreen programming in 4:3 full screen format through the S-video, composite video, or RF video outputs when the DCT6200 is tuned to a widescreen program.
Y Pb Pr Output	Selects the video display for the YPbPr 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 YPbPr (Component video) output format of the DCT6200 when it is tuned to 4:3 standard definition programs. Defaults to 480i.
	Options are OFF, 480i or 480p. If the YPbPr Output is set to 480i, this setting becomes redundant and defaults to OFF.
	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 with black bars on all four sides of the screen.
	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.
	If your DCT6200 is connected to your VCR and you record programming using your VCR, setting 4:3 Override to 480i will cause your VCR to record any graphic overlays (program guides, closed captions, on-screen menus) that were displayed during the recorded program, regardless of the YPbPr Output and video output combinations.
	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.

The following table describes the options available in the on-screen menu:

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 Style	Selects the font style for closed captions. Defaults to AUTO.
	Options are AUTO, MONO SERIF, PROPORTION SERIF, MONO NO SERIF, PROPORTION NO SERIF, CASUAL, CURSIVE, or SMALL.
Foreground	Selects the foreground color for closed captions. Defaults to AUTO.
Color	Options are AUTO, WHITE, BLACK, RED, GREEN, BLUE, YELLOW, MAGENTA, or CYAN.
Foreground	Selects the opacity of the closed captions foreground. Defaults to AUTO.
Opacity	Options are AUTO, TRANSPARENT, TRANSLUCENT, SOLID, or FLASHING.
Background	Selects the background color for closed captions. Defaults to AUTO.
Color	Options are AUTO, WHITE, BLACK, RED, GREEN, BLUE, YELLOW, MAGENTA, or CYAN.
Background	Selects the background opacity for closed captions. Defaults to AUTO.
Opacity	Options are AUTO, TRANSPARENT, TRANSLUCENT, SOLID, or FLASHING.
Service	Selects the service to be used for closed captions. Defaults to AUTO.
Selection	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.

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
The DCT6200 will not power on	Verify that the AC power cord is connected to the DCT6200 and an AC outlet.
	If the DCT6200 is connected to a switched outlet on another unit, verify that that unit is powered on.
	Press the POWER button on the DCT6200 front panel instead of the remote control. The batteries in the remote control may be depleted.
	The DCT6200 may have received a software update and may not power on while the new software is being installed. Try again in a few minutes.
The remote control does not work	Verify that the remote control is in "Cable" mode.
	Verify that there are no obstructions between the remote control and the DCT6200. Aim the remote control directly at the DCT6200 front panel, not the TV or VCR.
	The angle between the remote control and the DCT6200 may be too large. Stand in front of the DCT6200 and not too far to either side.
	Firmly press and release operation keys one at a time.
	Try changing channels using the buttons on the DCT6200 front panel.
	Check the batteries in the remote control. Install new batteries if needed.
There is no audio when viewing cable	Verify that the MUTE button on the DCT6200 or the remote control has not been pressed. Press MUTE on the remote control to restore sound.
channels	If the DCT6200 audio output is connected to the TV, verify that the \ensuremath{MUTE} button on the TV has not been pressed.
	If the DCT6200 audio output is connected to a home theater receiver, verify that the receiver is set to the appropriate input source and the mute button on the receiver has not been pressed.
	Verify that you have the correct cables for the audio ports.
	Verify that the audio cables are firmly connected between the DCT6200 and the audio playback device (TV, receiver, etc.).
There is no audio from the center	Not all Dolby Digital programs feature full 5.1 surround sound. In some cases, the programs may only contain left and right stereo audio.
and/or surround speakers of a home theater receiver connected to the DCT6200	Verify that the SPDIF cable (coaxial or optical) is firmly connected to the DCT6200 and the home theater receiver.
	Verify that the home theater receiver is set to a surround sound audio mode (Dolby Digital, Dolby Pro Logic II, Dolby Pro Logic).
	Verify that the receiver is properly configured to work with all connected speakers.

Problem	Possible Solution
There is no video on the TV screen	Verify that the TV is powered on and set to the appropriate input source for the DCT6200.
	Verify that the DCT6200 is powered on and tuned to an authorized cable channel.
	Verify that the coaxial cable feed is firmly connected to the DCT6200 and the wall jack.
	The DCT6200 DVI output may not yet be enabled. Use the component video (Y Pb Pr) output instead.
	If the DCT6200 video output is connected to a home theater unit, verify that the home theater unit is powered on and set to the appropriate input source.
	Not all HDTVs can display every output format (1080i, 720p, 480p, or 480i) available on the DCT6200. Enter the User Settings menu and cycle through the available output formats until a picture displays on the TV.
	Verify that all video cables between the DCT6200 and the TV are firmly connected.
There are no graphics, closed captions, or program guides appearing on	The DCT6200 cannot generate graphics on all video outputs at all times. If the DCT6200 is set to 1080i, 720p, or 480p output format, graphics are only available on the high definition video outputs (DVI and component video). If the DCT6200 is set to 480i, graphics are available on all video outputs.
the TV screen	If the DCT6200 is connected to a standard definition (SD) TV, verify that the DCT6200 is configured to use the 480i output mode.
	Verify that closed captions on the DCT6200 have been enabled in the User Settings menu.
Programming recorded by the VCR contains graphics, closed captions, or	If your DCT6200 is connected to your VCR and you record programming using your VCR, setting 4:3 Override to 480i will cause your VCR to record any graphic overlays (program guides, closed captions, on-screen menus) that were displayed during the recorded program, regardless of the YPbPr Output and video output combinations.
program guides	The 4:3 Override feature can be configured from the User Settings menu.
There are black bars to the right and left of the picture	Wide screen TVs display 4:3 programs in this format unless set to Stretch. Turn on the 4:3 OVERRIDE feature in the User Settings menu. This enables most wide screen TVs to stretch the video to fill the screen (see the TV manual for information about stretching 4:3 video).
	If the DCT6200 is connected to a wide screen TV, verify that the TV TYPE is set to 16:9 in the User Settings menu.
	Many HD programs are broadcast in pillar-box format with black bars to the left and right of the picture. These programs are broadcast in 16:9 HD formats even though the video is not 16:9.
There are black bars above and below the	All 4:3 HDTVs display HD programs in letterbox format (black bars above and below the picture) because of the shape of the display screen.
picture	Turn on the 4:3 OVERRIDE feature in the User Settings menu. This enables most standard screen TVs to display a full screen picture when the DCT6200 is tuned to a 4:3 program.
	Set the TV TYPE to 4:3 Pan-Scan. This enables the DCT6200 to remove the black bars above and below the picture when possible.
	Some standard definition (SD) programs are broadcast in the letterbox format with black bars above and below the picture. Some wide screens TVs offer a zoom feature that may be able to remove the black bars (see the TV manual for information about zooming 4:3 video).

Problem	Possible Solution
There are black bars on all four sides of the picture	This may occur on a 4:3 TV if the 4:3 OVERRIDE setting is OFF. To cause 4:3 standard definition (SD) programming to fill the screen, depending on the capabilities of the TV, so 4:3 OVERRIDE to 480i or 480p.
	This may occur on a 16:9 TV if the active video for an SD broadcast is in letterbox format. To confirm, wait for a commercial or look for a graphic, such as a network logo. If the commercial fills the screen from top to bottom, or the graphic appears below the active video, the program is being letterboxed by the broadcaster. You can minimize this by activating the zoom feature on the TV.
	A broadcaster may include black bars on either side of a wide screen broadcast. This is called a "hybrid" aspect ratio and results in a black border surrounding the video on a 4:3 TV. Because this is part of the broadcast, the DCT6200 cannot correct the video. You may be able to minimize the border using the zoom feature on the TV.

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