2 The Parts of the System

THE RECEIVER

THE RECEIVER FRONT PANEL

CONTROL BUTTONS

The front panel buttons give you some control over the receiver. These buttons work the same way as the matching remote control buttons, described in *Chapter 3 - Using the Satellite System* and *Chapter 4 - Using the DVD Player.*
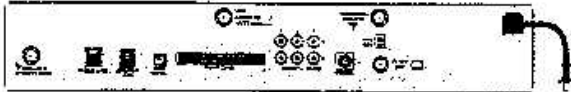

MODE INDICATORS

A green light over the SAT label lights up when the receiver is turned

ON and is in satellite receiver mode, and goes out when the receiver is turned OFF. A red light over the DISC label lights up when the receiver is in DVD mode and changes to orange when in audio CD mode.

FRONT CARD SLOT

The card slot behind the left access door requires a special e-commerce card. *Do not* insert the DISH Network smart card in to this slot. *You do not need a card inserted in this card slot.*

THE RECEIVER BACK PANEL

The back panel of the receiver provides the connections that you use to wire the receiver to all the other electronic devices that you use. It also provides the receiver power cord and telephone jack. Depending on the wiring setup that you use, you may not use some of these connections, but they are provided to support any desired setup. The DVD Player does *not* require any special wiring. See *Chapter 5 - Reference,* or the *Installation Instructions* for more information.

SMART CARD SLOT

The DISH Network Smart Card should already be inserted in the receiver back panel slot.

THE REMOTE CONTROL

For information on using the remote control, see *Chapter 3 - Using the Satellite System* and *Chapter 4 - Using the DVD Player.*

Note: If you lose or damage the remote control you will *not* be fully able to control the receiver. If this happens, call the Service Center at 1-800-333-DISH (3474) to order a replacement. You will be charged the sale price of the remote control, plus shipping and handling.

UHF remote controls (with the UHF symbol on the front side) can operate the receiver through the walls of your building. To use such a remote,

you must attach a UHF antenna to the receiver back panel UHF Remote Antenna connection.

IR remote controls (with "INFRARED REMOTE" on the back side) must be pointed directly at the receiver, with no objects blocking the line of sight. You can use such a remote only within 40 feet of the receiver.
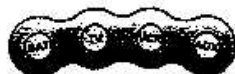
INSTALLING BATTERIES IN THE REMOTE

The remote control is shipped with AAA batteries, packaged separately. When you replace old batteries, you should replace all of the batteries. Use batteries of the same grade, for example, alkaline or carbon zinc, and do not mix batteries of different grades. Alkaline batteries provide longer battery life.

1. Press down on the slot in the battery cover (on the back of the remote control) and slide the cover off.

2. Insert the new batteries, making sure to match the plus ("+") ends with the plus markings on the battery case.

3. Replace the battery cover by sliding the cover back up into place.

THE REMOTE CONTROL BUTTONS

MODE BUTTONS

The SAT (satellite receiver), TV, VCR, and AUX (auxiliary) mode buttons indicate which device the remote will control. To change modes, press the appropriate button. The corresponding button background light turns on. For DVD operation, make sure the remote is in the SAT mode.

TV/VIDEO

If you connect the receiver using only the RF or VHF connections, use this button, in SAT mode, to switch between the receiver and an alternate video source such as cable or broadcast TV antenna input. It will switch to the device routed into the TV Antenna Cable In connection.

In TV mode, this button will switch between video inputs on some TVs (check your television owner's manual for more details).

MENU

In SAT mode, press the Menu button to open the Main Menu. When using the DVD Player, this button will bring up the DVD disc menu.

POWER

In SAT mode, press the Power button to turn the receiver ON or OFF. The green Power light over the SAT label on the receiver front panel lights up to indicate the receiver is ON. For each mode, the Power button will turn that device ON and OFF, if the remote has been programmed for that device. See *Programming the Digital Remote to Control Other Devices* on page 3-7. Note: If you program the TV mode to control a television and do not program the AUX mode, the AUX mode button will turn the television ON and OFF. This allows you to turn the television ON or OFF without leaving SAT mode.

PAGE UP AND PAGE DOWN

In SAT mode, press the Page Up or Page Down arrow button to scan, by page, through the listing of channels when you have open the Program Guide or, if the receiver supports Themes, the Theme Categories menu.

In VCR mode, these buttons scan up or down through the television channels.

MUTE

In any mode, press the **Mute** button to temporarily turn off the sound. Press it again to restore the sound. The **Mute** button works only if you have programmed the remote. See *Programming the Digital Remote to Control Other Devices* on page 3-7.

VOLUME

In any mode, press the plus (+) side of the **Volume** button to increase the sound volume. Press the minus (-) side of the **Volume** button to reduce the sound volume. This button works only if you have programmed the remote. See *Programming the Digital Remote to Control Other Devices* on page 3-7.

GUIDE

In **SAT** mode, press the **Guide** button to open the **Program Guide**. When the **Program Guide** is open, press the **Guide** button to switch among Favorites Lists.

SELECT

In **SAT** mode, press the **Select** button to switch to DVD mode or press the **Select** button to select the highlighted option in a menu and perform the function.

In **VCR** mode, this button functions as the **Play** button. Press this button to play the video tape.

In **TV** or **AUX** mode, this button functions as an **Enter** button.

Press the **Select** button to go to **DVD** mode

or to select an option from a DVD disc menu

UP/DOWN/LEFT/RIGHT

In **SAT** mode:

- When using a menu, press these buttons to move the highlight to the desired option.

- When watching a program, press the **Right** button to open the **Browse Banner** or the **Up** or **Down** button to change channels.

- When the **Browse Banner** is open, press the **Up** or **Down** button to view the **Browse Banner** for the next channel.

- When a menu offers a list of choices, press the **Up** or **Down** button to bring more choices into view.

- When the **Program Guide** is open, press the **Up** or **Down** button to move the highlight through the channels.

- When a number must be entered in a menu, press the **Up** or **Down** button to increase or decrease the highlighted number.

- When the **Browse Banner** or **Program Guide** is open, press the **Left** or **Right** button to display programs in different time periods (but not a time period earlier than the present).

- If the receiver supports **Theme Categories**, when watching a program press the **Left** button to open the **Theme Categories** menu.

In **VCR** mode:

- The **Up** button functions as the **Stop** button. Press this button to stop the video tape.

- The **Down** button functions as the **Pause** button. Press this button to temporarily stop the video tape during recording or play. Press this button or the **Select** button (Play) to restart the tape.

- The **Left** button functions as the **Rewind** button. Press this button to rewind the video tape. During tape play, press this button to rapidly view the video tape as a reverse

visual search.

- The Right button functions as the Fast Forward button. Press this button to rapidly advance the video tape. During tape play, press this button to rapidly view the video as a forward visual search.

In TV or AUX mode:

Use the Up or Down button to change channels up or down.

In DVD mode:

- When using a menu, press these buttons to move the highlight to the desired option.

RECALL

In **SAT**, **TV**, or **AUX** mode (for cable TV boxes only), press the **Recall** button to go back to the last channel you were watching. Press repeatedly to alternate between the last two channels that you viewed.
Note: You must first program the remote to control the device. See *Programming the Digital Remote to Control Other Devices* on page 3-7.

INFORMATION

In SAT mode:

- Press this button for more information when the **Program Guide**, **Browse Banner**, or **Theme Categories** menu is open, or you are watching a program.

- When a menu is open that includes a Help option, press this button to see help information for that menu.

- If the receiver supports **Theme Categories**, highlight a program in a **Theme Categories** list and then press this button for more information on that program.

- When the receiver is OFF, press this button to display the **Important System Information** menu.

VIEW

In SAT mode:

- Press this button to return to watching a program.

- If already watching a program, press this button to briefly display the **Program Banner**.

- From any menu, press this button to cancel the procedure and immediately go back to watching the program.

In DVD mode:

Press this button to return to Satellite TV viewing.

CANCEL

In Sat mode:

Press the Cancel button to cancel the current procedure and to return to the previous menu or to watching a program.

In DVD mode:

If the View banner is on, press the Cancel button to return to watching a program.

SYSTEM INFORMATION

In SAT mode, press this button to display the **Important System Information** menu.

RECORD

In VCR mode, press this button to start recording on the VCR.

NUMBER PAD

In any mode:

• When watching a program or with the **Program Guide** open, enter the 3-digit channel number to change immediately to that channel.

• Use the number pad buttons to enter menu option numbers.

• Use these buttons to enter a number such as a ZIP code or password in a menu.

• When the **Program Guide** is open, enter a number of hours using the number pad buttons, and then press the **Left** or **Right** arrow to display programs in the time period offset by that number of hours. The receiver cannot display a time period earlier than the present.

In DVD mode:

• The **2** button functions as the **Title** button. Press this button to cycle through the available DVD disc titles.

• The **4** button functions as the **Audio** button. Press this button to cycle through the available DVD audio options.

• The **5** button functions as the **Angle** button. Press this button to cycle through the available angles on a DVD disc.

• The **6** button functions as the **Subtitle** button. Press this button to cycle through the available DVD subtitles.

• The **8** button functions as the **Chapter** button. Press this button to skip ahead one chapter on the DVD disc.

SKIP◄◄ **STAR (*)/SKIP BACK**

Note: When you are in the Disc menu, these buttons function as standard number buttons.

In AUX mode:

Use this button to program the remote control.

In DVD mode:

Press this button when midway through a chapter/track, and play will return to the start of that chapter/track. Press it again to skip back to a previous chapter/track.

SKIP►►i **POUND (#)/SKIP AHEAD**

In SAT mode:

Use this button to set and to check the remote control address.

In DVD mode:

Press this button to skip ahead to the next chapter/track.

PLAY

In DVD mode:

Press this button to begin playback of a disc.

STOP

In DVD mode:

Press this button to stop playback of a disc.

PAUSE

In DVD mode:

• Press this button to freeze/still a picture or pause a chapter/track.

• Press this button repeatedly to advance still pictures frame by frame

• Press **Forward** or **Reverse** when in Pause

mode for Slow Forward or Slow Reverse.

FAST FORWARD

In DVD mode:

- Press this button to fast forward search through a disc,

- Press the button repeatedly and the Re
  Step 4.

   REWIND

In DVD mode:

- Press this button to rewind search through a disc. .

- Press the button repeatedly and the rewind speed will increase to Step 4, the maximum.

CHANGING THE DIGITAL REMOTE ADDRESS

Do not change the address of the remote unless absolutely necessary.

Note: If you start this procedure and at any time do not press a button within 20 seconds, the remote will end the procedure automatically. Simply start over again.

1. Press the **Menu** button.

2. Select the **System Setup** option.

3. Select the **Installation** option.

4. Select the **System Info** option. This displays the **Important System Information** menu.
   Note the **Remote Address** shown on this menu.

5. Press and hold the **SAT** mode button about three seconds, until all the mode button backlights come on, then release the **SAT** button.

6. Use the number pad buttons to enter a number from 1 to 15. The **SAT** mode button backlight will blink off after you enter each digit, and then come on again.

7. Press the **Pound** (#) button. If the address you entered is valid for the remote control, the **SAT** mode button backlight flashes three times.

8. Press the **Record** button. The number in the **Remote Address** field on the **Important System Information** menu should match the one you entered.

9. To verify the code, press and hold the **SAT** mode button for three seconds. Then, press the **Pound**

MENU

(#) button twice. The **SAT** mode button backlight flashes the same number of times as the address.

10. Select the **Cancel** option repeatedly to exit the menus.

INSTALLING AN ATTENUATOR (UHF REMOTE ONLY)

Other UHF signals may block signals sent from a UHF remote control to the receiver. To prevent such interference, you can install a 10 dB attenuator. This will reduce the sensitivity of the receiver to other UHF signals but also substantially reduce the operating range of the remote control.

1. Remove the UHF antenna from the **UHF Remote Antenna** connection on the receiver back panel.

2. Attach a 10 dB attenuator to the **UHF Remote Antenna** connection.

3. Attach the UHF antenna to the attenuator.

PROGRAMMING THE DIGITAL REMOTE TO CONTROL OTHER DEVICES

Note: If you want to program the AUX mode, program it *before* you program the **TV** mode. If you already have programmed the **TV** mode, do the following: (a) write down the TV code, (b) reprogram the TV mode using code 222, (c) program the AUX mode, and (d) reprogram the TV mode using the code that you wrote down.

1. Turn ON the device you want the remote to control. You must turn ON the device using its buttons or the remote control that came with it.

2. Find the brand name of the device in the device code tables starting on page 5-13. If the brand is not listed, see the *Doing the Remote Control Device Code Scan* procedure on page 3-8.

3. Press and hold the mode button for the device that you want the remote to control, for about three seconds. When all the other mode button backlights come on, release the mode button.

4. Use the number pad buttons to enter the code for the device. If you are programming in the **AUX** mode, you must enter a 4-digit code. The first digit is the code for the device, as follows: 0 is for a second TV, 1 is for a second VCR, and 2 is for an amplifier or cable TV box.

5. Press and release the Pound (#) button. If the code is valid, the mode button backlight blinks three times.

6. Test if the code works for the device by pressing the Power button. If the code works, the device should turn OFF.

7. Turn the device back ON and try some other functions to make sure they work. Occasionally, the Power button may work when other buttons do not. If the code works for other functions, stop here.

8. If the code you entered does not work, repeat steps 3 through 7 using another code from the tables.

9. If you have tried all of the codes listed for the device without success, or if you can not find the device brand name in the tables, use the *Device Code Scan* procedure as follows.

DOING THE REMOTE CONTROL
DEVICE CODE SCAN

If a device brand is not listed in the code tables or if the listed codes do not work, you can scan through all the codes, testing each one. The remote may not control some brands or models of devices.

1. Press and hold the mode button for the device that you want the remote to control, for about three seconds. When all the other mode button backlights come on, release the button. It will flash to indicate it is in the address programming format.

   For AUX mode only, use the number pad buttons to enter the number of the device. Then, press the Star (*) button. This defines the device for which you are scanning: 0 is for a second TV.
   1 is for a second VCR, and 2 is for an amplifier or cable TV box.

2. Press the Power button.

3. Press the Up or Down arrow button to set the remote to the next code. The Down arrow button scans backward, and the Up arrow button scans forward. Press the arrow button repeatedly to continue scanning.

   When the correct code is reached, the device turns OFF. If this happens, press the Pound (#) button to store the code in the remote. If the code is valid, the appropriate mode light blinks three times.

4. Press the Power button to turn the device back ON.

5. Try some other remote control buttons to make sure that you have the correct code.
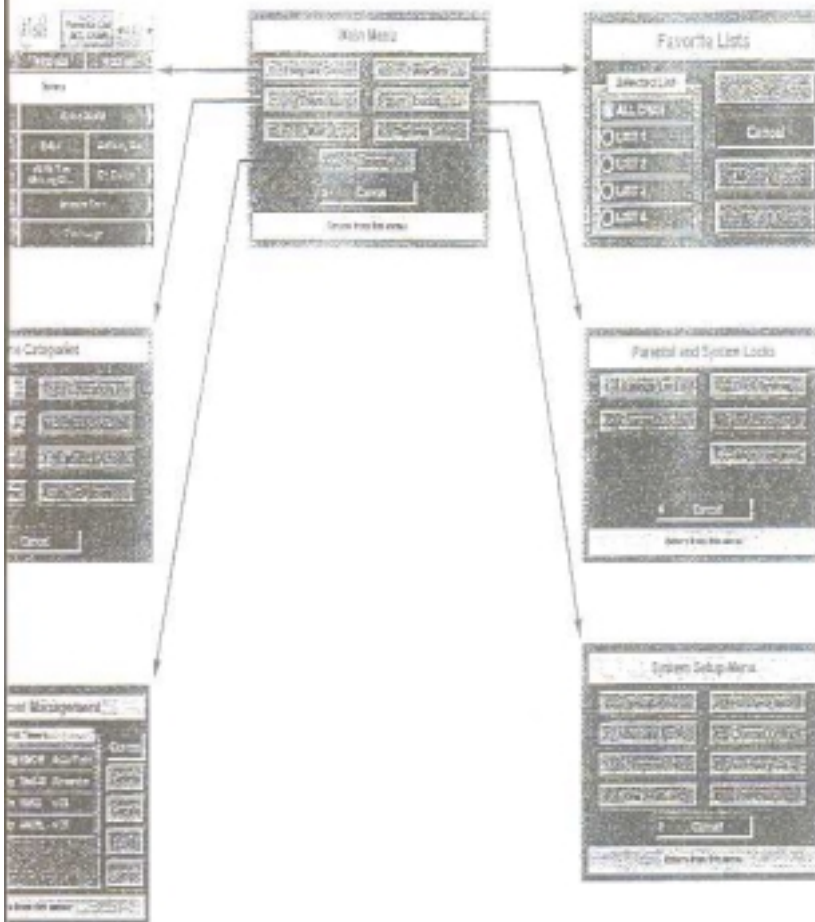
DETERMINING THE REMOTE CONTROL
DEVICE CODES

You can find out what device code is currently set for each remote control mode. Do the following:

1. Press and hold the mode button for the device that you want the remote to control, for about three seconds. When all the other mode button backlights come on, release the mode button.

2. Press the Pound (#) button twice. The mode light flashes the number of times to indicate each digit of the current mode, with a pause between the flash sequences. *For example,* for an AUX code of 0136, the mode light flashes once quickly (for zero), then once, three times, and six times.

THE RECEIVER MENU STRUCTURE

The following diagram shows the high-level
menus that the receiver displays on the television
screen. These menus are described on the next
few pages. *Chapter 3 - Using the System* explains
in more detail how to use these menus and their
sub-menus to operate the system.

Satellite System User Guide

MAIN MENU

The **Main Menu** is the key to the menu structure. Each option on this menu displays another menu.

PROGRAM GUIDE

The **Program Guide** provides a complete listing of the available channels and programs.

THEME CATEGORIES MENU

The **Theme Categories** menu allows you to choose programs based on the theme of their contents.

FAVORITE LISTS MENU

The **Favorite Lists** menu allows you to create, modify, and activate lists of favorite channels.

PARENTAL AND SYSTEM LOCKS MENU

The **Parental and System Locks** menu allows you to set and use security locks.

SYSTEM SETUP MENU

The **System Setup** menu provides a number of functions that help you set up and maintain the system.

EVENT TIMER MANAGEMENT MENU

The **Event Timer Management** menu allows you to review active event timers, to create an automatic or manual event timer, or to edit an event timer.

THE BROWSE BANNER

You can use the **Browse Banner** to change channels or to see what other programs are available without changing the current program. Because the **Browse Banner** is transparent, using it will not block out the program you are viewing.

Note: If the **ALL CHAN** Favorites List is active, the **Browse Banner** displays all the channels. If another list is active, the **Browse Banner** displays *only* the channels on that list.

Current Program Information

New Program Information

Satellite System User Guide

5 Reference

WIRING THE SYSTEM TOGETHER

TWO OR MORE RECEIVERS

Each output on the LNBF can support a single receiver. You cannot connect two receivers to the same output (*for example,* by using a line splitter), because the two receivers would interfere with each other during channel selection. This is a characteristic of satellite television in general, and is not a limitation of this system.

If you want to connect two or more receivers to the same satellite dish and be able to watch different channels through each receiver, you must use a dual-output LNBF. This allows you to connect each receiver to a different output, preventing interference between the receivers. In this case, during installation you must run a separate coaxial cable from each output on the LNBF to each receiver.

Note: If you want to install a multi-dish system, see the *Multi-Dish Installation Guide* or the appropriate sections of the *Installation Instructions*.
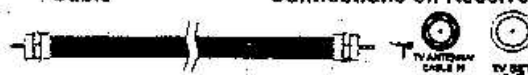
CABLES AND CONNECTIONS

ATTENTION! Tighten the receiver back panel coaxial cable connections only by hand. Using a wrench may over-tighten the connections, causing damage. Such damage is not covered by the Limited Warranty.

RF OF VHF CONNECTIONS
(GOOD PICTURE AND SOUND)

Cable   Connections on Receiver

The back panel RF or VHF connections (also called the modulator connections) provide good picture and good mono (non-stereo) sound quality. Be aware that even if you have a TV and other devices that support stereo sound, this type of connection will provide only non-stereo sound.
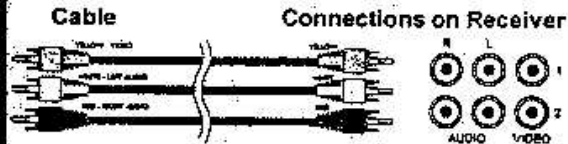
If you connect a cable TV box or a broadcast TV antenna to the receiver, use the back panel TV Antenna/Cable In (RF or VHF Connection) for the local programming signal input. Use the back panel **Phono (RCA) Audio/Video Output** connections for the output if possible, as using the TV Set Out (RF or VHF Connection) will not provide the best quality video on broadcast or cable channels.

This is the most simple cabling scheme, and many people prefer it because of its ease of installation and use. The RF or VHF connections require that you keep the TV tuned to either channel 3 or 4 to view satellite channels. You also need to set the back panel **Channel 3/4 Switch** to match this channel.

Note: If you connect a VCR to the receiver, you must also set both the VCR channel switch and viewing channel to this same channel. All receivers come preset to channel 3.

PHONO (RCA) AUDIO/VIDEO CONNECTIONS (BETTER PICTURE AND SOUND)

Cable   **Connections on Receiver**

The back panel phono (RCA) audio/video connections provide better picture quality and stereo sound. The phono (RCA) audio/video cable is available as a single cable with three connectors on either end, or as three separate cables. The connectors are color-coded according to the type of signal they carry: the yellow connector carries the video signal, the white connector carries the left audio signal, and the red connector carries the right audio signal. If the TV only has one input connection for this type of audio, connect it to the right (R) phono (RCA) audio connection on the receiver.

If you use the phono (RCA) audio/video connections to connect the receiver with other devices, then depending on the type of device that you connect to the receiver you may need to use the menus displayed by each device to change the input from local broadcast TV to satellite TV. See the user manuals that came with the other devices for more information.

UHF REMOTE ANTENNA

For UHF remote controls only, the receiver uses the UHF antenna to receive commands from the remote. Connect the UHF antenna here, and place it so it does not touch anything.

Note: Place the antenna vertically for maximum remote range. If necessary for space you can place the antenna horizontally, but his will reduce the range.

ACCESSORY JACK

If you use a multi-dish switch that is connected to the receiver back panel Accessory Jack, or if you use an IR extender (also called an "IR mouse tail"), you *must* set up the receiver properly.

To do this, display the **Main Menu**, and select the **System Setup** option. Next, select the **Accessory Jack** option. Finally, select the **IR Extender** or **Switchbox** option, and then select the **Save** option.

CHANNEL 3/4 SWITCH

CH 3
CH 4

If you use the TV Set Out (RF or VHF Connection) to wire the receiver to a television, set this switch to the channel for the signal output. Select a channel that is not being used by a cable or local television station.

Note: If you connect the receiver to a VCR that also uses a channel switch, set both switches to the same channel.

TV ANTENNA/CABLE IN (RF OR VHF)

Connect your broadcast TV antenna or cable TV connection here to switch between satellite programming and your local or cable TV. When the satellite receiver is turned OFF or you press the **TV/Video** button on the remote, you have access to your local TV stations from this connection.

TV SET OUT (RF OR VHF)

The receiver sends non-stereo output through this connector. If you connect the cable or broadcast TV antenna to the receiver, you must use this to connect the TV. If you use this connection, you do not need to use the **Phono**

(RCA) or S-VIDEO connectors. However, you should use them to support the highest quality stereo sound and video.

SUPER VHS VIDEO (S-VIDEO) OUTPUT (BEST PICTURE)

S VIDEO

The receiver supports S-VIDEO, which supports the highest quality video available. If you use this back panel connection for video, you must still connect the audio using the Phono (RCA) **Audio Outputs**.

TELEPHONE JACK

Connect a telephone line with a standard RJ-11 telephone connector to the receiver here, and then connect the line to an active telephone connection.
Note: The receiver must be connected at all times to an active telephone connection. If you install two or more receivers, each receiver must be connected at all times to an active telephone connection.

SATELLITE IN

Connect the coaxial cable from the satellite dish to the receiver using this connection.

DOLBY^R DIGITAL OUTPUT

Dolby® DIGITAL

Use this connection to route Dolby® Digital signals to a compatible amplifier/decoder.

(B) Appendix B

STAYING LEGAL

Title 47, Section 605(e)4, United States Code (U.S.C.) makes it a federal crime to modify this receiver to enable it to receive encrypted (scrambled) television programming without payment of required subscriptions. Conviction can result in a fine of up to $500,000 and imprisonment for five years, or both. Any owner of this receiver who procures or willfully causes its modification is an accessory to that offense and may be punishable in the same manner. Investigative authority for violations lies with the Federal Bureau of Investigation (FBI).

U.S. Patent Nos 4631603, 4577216, 4819098 are licensed for limited pay per view use only.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited pay per view uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

FCC COMPLIANCE

TELEPHONE COMMUNICATION

ATTENTION	The following text is extracted from Federal Communication Commission (FCC) regulations, as of the publication date of this *Guide* Contact the FCC (see the following) or your library for the complete text of the regulations.

This equipment complies with Part 68 of the FCC rules. On the rear panel of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN for this product is 0.0B.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

This equipment uses the following Universal Service Order Code (USOC) jacks: RJ-11C.

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant.

This equipment cannot be used on telephone company-provided coin service. Connection to Party Line Service is subject to state tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If you experience trouble with this equipment, please contact the Service Center at 1-800-333-3474 for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

The customer may perform minor adjustments such as the following, in case of problems with the equipment.

- Move or realign the antenna or receiving device, such as your broadcast TV antenna.

- Increase the distance between the receiver and the equipment with the interference. Change the angle of the receiver relative to the equipment.

- Plug the receiver into a different power outlet, preferably on a different fuse circuit within your building.

Refer to the *Problems and Solutions Tables* starting on page 5-5 for a detailed description of recommended customer actions.

> **WARNING!** Do *not* attempt to open the receiver, as this will void the Limited Warranty (with the exception of opening the Smart Card access door on the receiver front panel). There is risk of electrical shock, which may result in damage to the equipment, or personal injury or death. There are no user-serviceable parts inside the receiver. Unauthorized modification will void the Limited Warranty.

This equipment is hearing-aid compatible.

It is recommended that the customer install an AC surge arrestor in the AC outlet to which this device is connected. This is to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

RADIO INTERFERENCE

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 a 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 this 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 or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

In addition, the FCC provides a booklet that can help you. You can order the booklet from the following address:

How to Identify and Resolve Radio-TV Interference Problems
Stock No. 004-000-00345-4
U.S. Government Printing Office
Washington, DC 20402