ATTENTION SYMBOLS, WARNING SYMBOLS, AND GRAY BOXES

You must be aware of safety when you install and use this system. This User Guide provides various procedures. If you do some of these procedures carelessly, you could injure or kill yourself or damage equipment or property. Some other procedures require special attention.

WARNING! The WARNING! symbol means that if you are not careful,

- You could injure or kill yourself, or
- You could damage equipment or property.

ATTENTION! The ATTENTION! symbol means you should pay special attention to:

- Important instructions for using the system, or
- Important instructions for maintaining the system.

WARNING! The Double Insulation Symbol (shown at right) alerts qualified service personnel to use only identical replacement parts in this apparatus.

FOR YOUR SAFETY

WARNING! Do not try to open the case of the receiver. There is risk of electrical shock, which may cause damage to the receiver and/or personal injury or death to you. There are no user-serviceable parts inside the receiver. Opening the receiver case or making unauthorized changes will void the warranty.

WARNING! To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

IMPORTANT SOFTWARE NOTICE!

THIS PRODUCT CONTAINS AND UTILIZES COMPLEX SOFTWARE WHICH IS INHERENTLY SUBJECT TO CERTAIN BUGS. WHILE RARE, UNDER CERTAIN CONDITIONS FEATURES SUCH AS PARENTAL CONTROL MAY NOT FUNCTION AS INTENDED. ACCORDINGLY, ECHOSTAR COMMUNICATIONS CORPORATION CANNOT AND DOES NOT GUARANTEE OR WARRANT THAT ALL FEATURES WILL WORK AS INTENDED UNDER ALL CIRCUMSTANCES. ECHOSTAR COMMUNICATIONS CORPORATION CONTINUES TO IMPROVE ITS SOFTWARE AND PERIODICALLY DOWNLOADS SUCH IMPROVEMENTS TO THIS PRODUCT.

Note: This User Guide covers the DishPro 301 receiver, and software models DP301. This Guide may cover other devices, not listed here.
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Safety Instructions

WARNING! You should always follow these instructions to help ensure against injury to yourself and damage to the system.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
Note to Satellite TV System Installer: This reminder is provided to call the satellite TV system installer’s attention to Article 820-40 of the National Electrical Code (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 to the point of cable entry as practical.

Safety Tips

- Unplug the receiver from the AC power outlet before cleaning.
- The use of accessories or attachments not recommended by the receiver manufacturer will void the Limited Warranty.
- Do not place the receiver in an enclosure such as a cabinet without proper ventilation.
- Do not install the receiver in any area where the temperature can be less than 40°F or more than 113°F.
- Do not stack the receiver on top of or below other electronic devices.
- Operate the receiver using only the type of power source indicated on the marking label. Unplug the receiver power cord by gripping the power plug, not the cord.
- Do not overload wall outlets or extension cords, as this can result in a risk of fire or electrical shock.
- Never insert objects of any kind into the receiver through openings, as the objects may touch dangerous voltage points or short out parts. This could cause fire or electrical shock.
- Make sure that the outdoor parts of the antenna system are grounded in accordance with local, state, federal, and National Electrical Code (NEC) requirements.
- Do not locate the antenna near overhead light or power circuits, or where it can fall into such power lines or circuits. When installing the antenna, take extreme care to avoid touching such power lines or circuits, as contact with them can be fatal.
- Do not attempt to service the receiver yourself, as opening or removing covers may expose you to dangerous voltage, and will void the Limited Warranty. Refer all servicing to authorized service personnel.
- Use an outlet that contains surge suppression or ground fault protection. For added protection during a lightning storm, or when the receiver is left unattended and unused for long periods of time, unplug the power cord from the wall outlet, disconnect the lines between the receiver and the antenna, and disconnect the telephone line. This will provide some protection against damage caused by lightning or power line surges.
Chapter 1
Introduction

WELCOME TO DISH NETWORK™ AND DISH INTERACTIVE℠

Congratulations on choosing DISH Network. You are about to experience the excitement and convenience of Digital Broadcast Satellite (DBS) service, which delivers the very best in picture and sound quality. DISH Network consistently delivers state-of-the-art, satellite-delivered products and services — with high performance, ease of operation, and a wide variety of entertainment options.

Your new receiver supports DISH Interactive, an exciting new feature that lets you interact with your TV to obtain weather forecasts, play games, and obtain sporting information. In the future, DISH Interactive may even allow you to buy products associated with the shows you watch, participate in selected programs, and enjoy many other advanced features.

ABOUT SATELLITE TELEVISION

Satellite television uses a satellite in a stationary orbit over the Earth to deliver television and audio programming. This type of orbit enables the satellite to stay aligned over one place on the surface of the Earth.

Once the satellite dish is aimed at the satellite, the dish does not have to move to follow it.

HOW TO USE THIS GUIDE

For more information on any specific feature or function, read Chapter 3, Using The System beginning on page 13.

For information on assembling and installing a satellite system, read Chapter 4, Installation Instructions beginning on page 63.

You can look up information on specific topics in the Table of Contents or Index.

If you have a problem operating the system or receive an error message, use the Troubleshooting Tables beginning on page 99.
IF YOU NEED MORE ASSISTANCE

If none of this helps, call Customer Service at 1-800-333-DISH (3474) or visit our home page on the Web at www.dishnetwork.com. You can also call the Customer Service number for information on professional installation.

QUICK START GUIDE

STEP 1: ORDERING YOUR PROGRAMMING

1. If the receiver is off, press Power on the remote or press the Power button on the receiver.

You will see that some channels appear in white. These channels can be viewed immediately. However, many channels will be in red. You cannot view these channels until you order programming.

TO ORDER PROGRAMMING

- Display the Important System Information screen on your receiver by pressing Sys Info on the remote.
- Call the Customer Service Center at 1-800-333-DISH (3474).
- A customer service representative will help you with your system and will discuss the various programming packages available.
- Choose a package and the representative will authorize your programming.
- Wait a few minutes and the channels you purchased will turn from red to white, and can now be viewed.

STEP 2: FINDING PROGRAMS TO WATCH

First, make sure the green light on the front of your receiver is lit. If it is not, the receiver is turned off. Press the Power button on the remote or press the Power button on the receiver. There are three ways to find information on programs.

- Press the remote control Guide button. When the Program Guide opens, use the Up or Down Arrow to view information on other channels. Once you have highlighted a program in the Program Guide, press Select to watch it.

Tip: Channels that appear in red cannot be viewed because they are not part of your subscription. You can add channels to your subscription simply by calling DISH Network at 1-800-333-DISH.
Step 2: Finding Programs To Watch

**Note:** The Program Guide provides a complete listing of all programs available on all channels, including those that are not in your subscription (these channels have red backgrounds).

- While viewing a program, press the Browse (Right Arrow) button.

Then press either the Up or Down Arrow. The information on other channels will appear in the Browse Banner at the bottom of the screen. Press Select to watch the program.

- Press the Menu button and select Program Guide from the Main Menu. When the Program Guide opens, use the Up or Down Arrow to view information on other channels. Once you have highlighted a program in the Program Guide, press Select to watch it.

**Note:** If you select a program that has not yet started, the receiver displays a Create an Event Timer menu (for more information on Event Timers, see page 33).

### SATELLITE SIGNAL QUALITY

#### RAIN AND SNOW FADE

Heavy rain, snow, or cloud cover can block the satellite signal, which can interrupt your programming service. By aiming the satellite dish to get the strongest signal, you can help prevent rain and snow from interrupting the signal. Your service will return after the weather condition has passed.

**Tip:** The system automatically displays programs based on the current day and time. You can advance the Guide to view information on future programs, but not programs that have already ended.

**Tip:** If you lose your picture, it’s most likely due to heavy rain, snow or snow build-up on your dish.
SOLAR INTERFERENCE

Twice a year, the sun moves to a position behind the DISH Network satellite as it orbits the Earth. The exact time of the year that this occurs varies, depending on the location, but it is near the beginning of spring and again near the beginning of autumn.

When the sun is directly behind the satellite, solar energy overpowers the satellite signal for just a few minutes.

This is an unavoidable natural event for all television involving the use of satellites and has an adverse effect on many program providers. During this period, you will not be able to see programs on DISH Network. Once the sun has moved from behind the satellite, the programs will reappear.
Chapter 2
The Parts of the System

THE RECEIVER FRONT PANEL

ACCESS DOOR

The Smart Card should already be inserted in the receiver front panel slot, behind the door.

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 the chapter titled Using the System.

IR SENSOR AND IR BLASTER

The IR Sensor receivers IR signals from the remote control. For information on the IR Blasters, see page 41, Setting Up the Receiver and VCR to use VCR Event Timers.

POWER LIGHT

This green light on the front panel lights up when you turn the receiver ON and goes out when you turn the receiver OFF.
Chapter 2

The Parts of the System

THE RECEIVER BACK PANEL

The back panel of the receiver provides the connections that you use to wire the receiver to other electronic devices. 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 available. See Chapter 4 - Installation Instructions, or the installation instructions that came with the system for more information.

THE REMOTE CONTROL

Note: This remote control shown here is for example only. The remote that came with the receiver may be different.

For information on using the remote control, see Chapter 3 - Using the System.

For information on using the remote to control other devices, go to the section titled Control Other Devices with the Remote, beginning on page 53.

If you lose or damage the remote control, you will not be fully able to control the receiver. If this happens, call the Customer Service Center at 1-800-333-DISH (3474) to order a replacement. You will have to pay for the remote control, plus shipping and handling.
REMOTE CONTROL BATTERIES

The remote control comes with AAA batteries. When you replace old batteries, you should replace all of the batteries. Use batteries of the same kind, *for example* alkaline or carbon zinc, and *don’t* mix batteries of different kinds. Alkaline batteries last longer.

1. Press down on the top of the battery cover’s slide the cover off.
2. Take out all of the old batteries.
3. Put the new batteries in. Make sure you match the plus (“+”) ends with the plus markings on the battery case.

Fit the battery cover’s bottom tab back into the slot at the bottom of the battery case, and slide the cover back into place.

THE MENUS

The next few pages describe the menus that the receiver displays on the television screen. The diagram on the following page shows how the menus are related to each other. The section titled *Using the System* explains in more detail how to use the menus to operate the system.
Chapter 2

THE MENU STRUCTURE

This diagram shows how the menus that the receiver displays on the television screen relate to one another. The next few pages describe these menus. The rest of this chapter explains in more detail how to use the menus to operate the system.

Note: The Mail feature is only for delivery of DISH Network messages to you, and only under special circumstances.
**MAIN MENU**

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

**PROGRAM GUIDE**

The **Program Guide** lists the available channels and programs. It also has a one-quarter screen video window option that shows the last program you were viewing.

**Note:** Your Program Guide will look like one of the two shown below.

**THEME CATEGORIES MENU**

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

Tip: Love sports or movies? Choose one of these themes and the system immediately displays a list of all programs on at the current time that fit the selected category. See page 30 for details.
FAVORITE LISTS MENU

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

Note: Your Favorite Lists menu will look like one of the two shown here.

PARENTAL AND SYSTEM LOCKS MENU

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

Tip: This menu is where you start to set up lists of your favorite channels. For details on setting up these lists, see page 31.

Tip: Want to keep your kids from watching certain channels or programs? Here’s where you can set locks to keep them out. For complete details, see page 42.
The Menu Structure

**SYSTEM SETUP MENU**

The **System Setup** menu provides several features that help you set up and maintain the system.

![System Setup Menu](image)

**TIMER MENU**

The **Timers Menu** allows you to set up the receiver to tune in and/or record a future “event,” that is, a program.

![Timer Menu](image)

Tip: This menu lets you set timers to remind you when that important program is on. Or you can set timers to video-tape events. See page 40 for complete details.
THE BROWSE BANNER

You can use the **Browse Banner** (press the Right arrow on the remote control) to change channels, or to see what other programs are available without changing the program that you are watching. The receiver displays information on the program you are watching at the top of the screen and Browse Banner information at the bottom of the screen.

**Note:** Your Browse Banner may look a bit different than the one shown here.
Chapter 3
Using the System

BACK PANEL CONNECTIONS

For information on wiring, and wiring diagrams, see the installation instructions in Chapter 4. It includes information on installing multi-dish setups and switches.

SATELLITE

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

TV SET OUT CONNECTION

The back panel TV Out connection provides good video and mono (non-stereo) audio quality.

TV ANTENNA/CABLE IN

If you connect a cable TV box or a broadcast TV antenna to the receiver, use the back panel TV Antenna/Cable In connection for the local signal.

PHONO (RCA) AUDIO/VIDEO OUTPUTS

The back panel phono (RCA) audio/video outputs provide good picture quality and stereo sound. If the TV has only one input for this type of audio, connect it to the right (R) phono (RCA) audio output on the receiver.

Tighten the coaxial cable connections only by hand.

Tip: If you connect a VCR to the receiver, you must also set both the VCR channel switch and viewing channel to this same channel.
If you use the phono (RCA) audio/video outputs to connect the receiver with other devices, 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.

**SUPER VIDEO (S-VIDEO) OUTPUT**

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

**CHANNEL 3/4 SWITCH**

If you use the TV Set Out to connect 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 channel.

**TELEPHONE JACK**

Connect a telephone cable with a standard RJ-11 telephone connector to the receiver here, and then connect the cable to an active telephone line.

**Note:** The receiver must be connected at all times to an active telephone line. If you install two or more receivers, each receiver must be connected at all times to an active telephone line.
USING THE REMOTE CONTROL

The following section describes how to use the remote control with your satellite receiver. You can also use the remote to control your VCR and other devices. See Control Other Devices with the Remote on page 53.

SAT MODE BUTTON

Press this button to set the remote to SAT mode, to control the receiver. The SAT mode button’s back light turns ON briefly to show that the remote is set to SAT mode.

Note: Make sure to keep the remote in SAT mode to use the buttons that are described here.

AUXILIARY (AUX) MODE BUTTON

If you set up the remote to control the TV and do not set up the remote in AUX mode, then with the remote in SAT mode you can press the AUX mode button to turn the TV ON and OFF.

TV/VIDEO BUTTON

TV/VIDEO

If you connect the receiver using its back panel TV Antenna/Cable In and TV Set Out connections, use this button to switch the receiver between the satellite signal (routed into the receiver’s Satellite In input) and another video signal such as cable or broadcast TV antenna input (routed into the receiver’s TV Antenna/Cable In input).

POWER BUTTON

Press this button to turn the receiver ON or OFF. The green Power light on the receiver front panel lights up to show that the receiver is ON, and goes out to show that the receiver is OFF.
Chapter 3

Using the System

**MENU BUTTON**

Press this button to open the **Main Menu**.

**PAGE UP AND PAGE DOWN (ARROW) BUTTONS**

Press the Page Up button or the Page Down button to scan, page by page, through the **Program Guide**, a **Theme Categories** list, a **Favorite List**, an **Event Timers** list, or a list of channels.

**MUTE BUTTON**

Press this button to turn off the sound. Press it again to restore the sound.

**Note:** You must program the remote to control your TV for the Mute button to work as described.

**VOLUME BUTTON**

Press the minus (-) side of this button to lower the sound volume. Press the plus (+) side of this button to raise the sound volume.

**Note:** You must program the remote to control your TV for the Volume button to work as described.

**TV or Amplifier Volume Control**

If you set up the remote to control a television, the **Mute** and **Volume** buttons - in any mode - control the TV volume. This does **not** apply if you use the **AUX** mode to control a device that has a volume setting.
If you want to control a device programmed in the Aux mode that has a volume setting, using any remote mode, do the following:

1. Press and hold the AUX mode button for three seconds, then release it.

2. Press the Pound (#) button.

3. Press the plus (+) side of the Volume button.

4. Press the 0 number button.

5. Press the Pound (#) button. The AUX mode button backlight blinks three times.

To switch back to TV volume control, do the following:

1. Press and hold the TV mode button for three seconds, then release it.

2. Press the Pound (#) button.

3. Press the plus (+) side of the Volume button.

4. Press the 0 number button.

5. Press the Pound (#) button. The TV mode button backlight blinks three times.

GUIDE BUTTON

Press this button to open the Program Guide. When the Program Guide is open, press this button to switch among Favorite Lists.
Tip: The arrow buttons can be used to quickly navigate through menus and the program guide. When you find a program or menu option you would like to access, just press Select.

Tip: To quickly open some of the menus, use the matching buttons on the remote control. For example, press the Left Arrow button to quickly open the Themes Menu.

Chapter 3
Using the System

UP/DOWN/LEFT/RIGHT (ARROW) BUTTONS

- When using a menu, press these buttons to move the highlight to an 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 see the Browse Banner for the next channels.

Note: The Browse Banner, like the Program Guide, shows information on current and future programs. It cannot show information on programs that have ended.
- When a menu offers a list of choices, press the Up or Down button to see more choices.
- When the Program Guide is open, press these buttons to move the highlight among the programs.
- When the Browse Banner is open, press the Right or Left button to obtain information on the next program that will be on that channel.
- When watching a program, press the Left button to open the Theme Categories menu.

SELECT BUTTON

Press this button to select a highlighted option or program in a menu.

RECALL BUTTON

Press this button to return to the last channel you were watching. Press it again to switch between the last two channels that you watched.
INFORMATION (INFO) BUTTON

Press this button for more information when the Program Guide or the Browse Banner is open, or when watching a program.

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

VIEW BUTTON

Press this button to return to watching a program.

- If you are watching a program, press this button to briefly display the Program Banner.
- While using any menu, press this button to cancel a procedure and return to watching a program.

CANCEL BUTTON

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

SYSTEM INFORMATION BUTTON

Press this button to open the Important System Information screen.

RECORD BUTTON

Press this button to start recording a program on a connected VCR.

Tip: When you’re in the Program Guide, a Theme Category or a Favorites List use the Information button to get a description of the program, the names of the actors, and other important details.
NUMBER BUTTONS

When watching a program or with the Program Guide open, use these buttons to enter a channel number to change to that channel.

- When the Program Guide is open, you can skip ahead and then back a number of hours. Just enter the number you want to skip ahead (or back), and then press the Right (or Left) arrow button.

- Use these buttons to enter menu option numbers. For an option that has a number, you may do this instead of highlighting the option and then pressing the Select button.

- Use these buttons to enter numbers in a menu:
  - Highlight the place where you want to enter the first number, and press the appropriate number buttons on the remote.
  - Use the Left or Right arrow button to move the highlight to the next place where you want to enter a number. When you are done entering numbers, press the Select button.

CHANGING THE REMOTE CONTROL ADDRESS

Note: Do not change the address of the remote unless absolutely necessary because the remote cannot control the receiver if the two devices have different addresses. If you start doing this procedure and then do not press any button for 20 seconds, the remote will end the procedure. Just start over again.

1. Press the Sys Info button on the remote control to display the Important System Information menu.
   Note the Remote Address shown on this menu.
2. Press and hold the Sat mode button until all the mode button backlights come on (it takes about three seconds). Release the Sat mode button.

3. Use the number 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. Write the new address in the space provided.

4. Press the Pound button. If the address you entered is valid for the remote control, the Sat mode button backlight flashes three times.

5. Press the Record button. The **Remote Address** on the Important **System Information Screen** menu should match the one you entered.

6. To check the address, press and hold the Sat mode button for three seconds. Then press the Pound button twice. The Sat mode button backlight flashes the same number of times as the address.

7. Press the Select button.

New Address: ________________________________
USING THE MENUS

The menus make using the receiver and selecting programs quick and easy. The receiver displays the menus on the TV screen. Use the menus to control the receiver and to use its features, such as setting locks, choosing a program, or creating a Favorite List.

OPENING THE MENUS

You can open the menus in either of two ways:

- Open the Main Menu, then open any of the other menus from the Main Menu.

  Or:

- To quickly open some of the menus — or get other helpful information — use the matching buttons on the remote control.

  Open the Program Guide.

When watching a program, open the Theme Categories menu.

Display the Browse Banner.

CLOSING THE MENUS

To close a menu and return to watching a program, press the remote control View button, or the remote control Cancel button.

Note: If you do not do anything in a menu for several minutes, the menu closes. This will discard any changes you made, and display the program you were watching. This does not mean that anything is wrong with the receiver.
**MENU OPTIONS**

A menu option looks like this.

**HIGHLIGHTING A MENU OPTION**

To highlight a menu option, use the remote control Arrow buttons to move the on-screen highlight to the menu option. When you do this, the option appears lighter than the other options. The highlight is like the one that you may have seen on a computer screen.

Compare the highlighted menu option with the non-highlighted menu option example above.

**SELECTING A MENU OPTION**

*When you select a menu option, that option takes effect right away.* You can select a menu option in either of two ways:

- If the option has a number next to it, press the number on the remote control number pad that matches this number. If you do this, you do not need to highlight the option first.

- Move the highlight to the menu option using the remote control Arrow buttons. Then press the remote control Select button.

**LISTS OF CHOICES IN THE MENUS**

*When you make a choice in a list, the receiver does not apply the change until you select the Save or OK option.* If you do not want to save any changes, select the Cancel option to discard all the changes made in the menu.

There are two types of lists:

- A *single choice* list allows you to select only one choice at a time. If you select another choice, your previous choice is deselected.

- A *multiple choice* list allows you to select more than one choice at one time. If you select another choice, your previous choice(s) stays selected.

**HIGHLIGHTING A CHOICE IN A MENU LIST**

Use the remote control Arrow buttons to move the highlight to the desired item in the list. The black arrows on the list show where you can move the highlight.

Tip: To quickly go to any menu option with a number next to it, just press the numbers on the remote that match that number.
Chapter 3

Using the System

SELECTING A CHOICE IN A MENU LIST

To select a choice in a list, highlight the choice and then press the remote control Select button. Make sure you select the Save or OK option to save your choice. Select the Cancel option to discard your choice.

When you highlight a choice in a single choice list, it looks like this. In this example, the Spanish option is highlighted.

When you highlight a choice in a multiple choice list, it looks like this. In this example, the LIFE - 108 option is highlighted.

When you select a choice in a list, it looks like this:

or
CANCELING A PROCEDURE

To cancel a procedure, you must press the remote control Cancel or View button before you do the last step of the procedure. If this does not work, you must finish the procedure.

You can cancel a procedure in any of three ways:

- If you want to return to watching a program, press the remote control View button.
- If you want to return to the previous menu, press the Cancel button.
- Wait a few moments and the menu will close, discarding any changes you have made.

CHANGING CHANNELS

Either: Press the remote control Up or Down arrow button to get to the desired channel.

Or: Use the remote control number pad buttons to enter the desired channel number.

USING THE PROGRAM GUIDE

The on-screen Program Guide provides a complete listing of the available channels and programs. You can use the Program Guide to change channels, to see what programs are scheduled, and to buy pay per view programs. The Program Guide shows which Favorite List is active.

Note: Your Program Guide will look like one of the two shown here.

Tip: You can cancel out of any menu option or the program guide at any time, and immediately return to viewing a program by pressing the View button.

Tip: The channel you select may display one of several program information symbols. If the program is on a channel that is not part of your subscription, the channel will be in red.
If the All Sub list is active, the Program Guide displays only the channels in your subscription. If another list is active, the Program Guide displays only the channels in that list.

- A red background behind a channel shows that you have not subscribed to that channel. You cannot tune in to this channel.

- The Program Guide shows programs that are on now and that are scheduled up to two days in advance. The guide does not show programs that have ended. You can set up the Program Guide to list channels in ascending order, with the highest channel number at the top, or in descending order, with the highest channel number at the bottom. To do this, open the Main Menu. Then, select the System Setup option. Finally, select the Channel Order option, select the Ascending or Descending option, and select the Save option.

This receiver allows you to see the program you are watching in a corner of the Program Guide. To do this, open the Main Menu. Then, select the System Setup option. Finally, select the Guide Displays option, select the Partial Guide With Video option. If you prefer a bigger guide (with no program displayed), select the Full Guide Without Video option, and select the Save option. When you first display the inset, there may be a brief delay before a picture appears.

- You can set up the Program Guide to hide adult channels. See Hiding Adult Channels on page 47.

**OPENING THE PROGRAM GUIDE**

**Either:** Press the Guide button.

**Or:**

1. Press the Menu button to display the Main Menu.

2. Select the Program Guide option.
SELECTING A PROGRAM IN THE PROGRAM GUIDE

1. Use the number pad buttons to enter the desired channel number. The Program Guide displays a block of channels including the one that you just entered.

2. Use the Up/Down/Left/Right buttons to move the highlight to the desired program.

3. You may press the Information button for more information about the highlighted program. Press the Cancel button to return to the Program Guide.

4. Press the Select button to change to the new channel.

5. You may press the Page Up or Page Down arrow button to scan, page by page, through the listing of channels.

Note: The remote must be in SAT mode to do this.

Note: The use of these buttons in VCR mode is covered in the section titled Control Other Devices with the Remote beginning on page 53.

You may skip the display forward or backward. To do this, enter the number of hours that you want to skip, using the number pad buttons (the number of hours you choose to skip forward or backward will be displayed in the white area third from the top of the Program Guide). Then, press the Left or Right arrow button.

Note: The Program Guide can display programs scheduled for some time beyond the present, but cannot display programs that have ended.

CLOSING THE PROGRAM GUIDE

To close the Program Guide and not change the channel, press the remote control Cancel button. The receiver displays the program you were watching before you opened the Program Guide.
DISPLAYING PROGRAM INFORMATION

USING THE PROGRAM BANNER

The Program Banner provides information about the program you are watching. The receiver displays the Program Banner for a few seconds at the top of the TV screen every time you change the channel or press the remote control View button.

Note: Your Program Banner may look a bit different than the one shown here.

USING THE BROWSE BANNER

You can use the Browse Banner to change channels, or to see what other programs are available without changing the program that you are watching. The receiver displays information on the program you are watching at the top and Browse Banner information at the bottom of the TV screen. Press the Up or Down arrow to see what programs are playing on the channels above or below the one you are viewing. Information on these programs appears at the bottom of the TV screen.

Note: If the All Chan Favorite List is active, the Browse Banner displays all the channels. If the All Sub list is active, the Browse Banner displays only the channels in your subscription. If another list is active, the Browse Banner displays only the channels in that list.

If you have set up the Program Guide to hide adult channels and the receiver is locked, the Browse Banner does not display such channels.
Displaying Program Information

OPENING THE BROWSE BANNER

To open the **Browse Banner**, press the remote control Right arrow button. An example of an open **Browse Banner** is shown below.

DISPLAYING INFORMATION ON OTHER PROGRAMS

1. Press the remote control Right arrow button to open the **Browse Banner** for the program that you are watching.
   **Note**: Your **Browse Banner** may look a bit different than the one shown here.

2. **Either**: Enter the channel number for the program that you want, using the number pad buttons.
   **Or**: Press the Up or Down arrow button to display the channel that you want.

3. Press the Right arrow button to display the next program. Press the Left arrow button to return to the current program.
   **Note**: The **Browse Banner** displays programs that are on now. If you press the Right Arrow, it will display information on the program that is on next on the same channel. It does not display information for any other programs in the future and cannot display programs that have ended.

4. You may press the Information button for more information about the program listed.

CHANGING CHANNELS USING THE BROWSE BANNER

If you are using the **Browse Banner** and see a program that you want to watch, press the Select button to change to the new channel. Make sure the program is displayed in the bottom part of the **Browse Banner**.

**Note**: If the program is on some time in the future, the receiver will open the **Create An Event Timer** menu.
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CLOSING THE BROWSE BANNER

To close the Browse Banner, press the remote control Cancel button. The receiver stays tuned to the program you are watching.

ORDERING PAY PER VIEW PROGRAMS

1. Highlight the desired pay per view program in the Program Guide and press the Select button.

Note: If any lock is in effect that covers the pay per view program, you must enter the password using the number pad buttons. As soon as you enter the fourth digit of the password, the receiver highlights the OK option.

2. Press the Select button.

3. Either:
   - To buy the pay per view program, select the Yes option. The receiver displays a confirmation menu. Go on to step 4.
   - Or: If you do not want to buy the pay per view program, press the Up or Down arrow button (if you are watching a program), or select the No or Cancel option. If you do this, you can stop here.

At the confirmation menu:

4. Either:
   - Select the Yes option to confirm the purchase. The pay per view fee will be added to your bill.
   - Or: Select the No or Cancel option to cancel the purchase.

Note: Once you confirm an order for a pay per view program, you cannot cancel the order and you will be billed for it.

USING THEMES

You can list and choose programs by the theme of their contents, for example, just movies or just sports. You can then quickly list programs based on that theme, and choose the program you want.

1. Either:
   - While watching a program, press the Left arrow button to display the Theme Categories menu.
   - Or: Press the Menu button, and then select the Themes option to display the Theme Categories menu. Select the option for a category. This displays a list of programs in the category.

2. Either:
   - Select either the Page Up or Page Down option to page through the list of programs.
   - Or: Press the Page Up or Page Down arrow button to scan, page by page, through the listing of channels.

Tip: Want to see what movies or sports events are available for viewing? Just press the left arrow (or Themes button) and use the up/down/left/right arrows to move to the theme that interests you. Press Select and you'll see what's playing.
Using Favorite Lists

Note: The remote must be in SAT mode to do this.

3. Highlight the desired program in the program list.
4. Press the Select button to watch the program.

Note: If the program you highlighted is on some time in the future, the receiver will open the Create An Event Timer menu.

USING FAVORITE LISTS

Favorite Lists are lists of your favorite channels. You can create and change the lists yourself, adding and removing channels as you wish. You can have an unlimited number of favorite channels but they must be grouped into no more than four lists. For example, one Favorite List could have 100 channels and a second list only 10. Or all four lists could have 50 channels each.

- When you make a Favorite List active, the Program Guide displays only the channels in that list. Also, the receiver skips channels that are not on the list when you use the remote control Up or Down arrow button to change channels.

- The All Chan Favorite List contains all the channels. You cannot make any changes to the All Chan list.

- The All Sub Favorite List contains all the channels in your subscription. You cannot make any changes to the All Sub list, except by changing your subscription.

- If you choose a program using Theme Categories, the receiver tunes to the channel for that program whether or not that channel is on the active Favorite List.

- Each Favorite List has a unique color in the Program Guide. You can give each list a name. When you first get the receiver, the four lists are named List 1, List 2, List 3, and List 4. The lists are empty until you add channels to them.

CREATING OR CHANGING A FAVORITE LIST

You can create, add channels to, and remove channels from, a Favorite List.

1. Press the Menu button.

2. Select the Favorites option.

3. Select the Favorite List that you want to create or change.
4. Select the Modify List option.

Tip: Favorite lists let you create lists of your favorite channels. Press the Program Guide button until the name of your list appears. This way you can quickly see what programs are playing on just those channels and not every channel in your subscription.
Note: At any time you can select the Clear List option to remove all channels from the current list. This does not apply to the All Chan and All Sub.

5. In the Channels list, highlight a channel you want to add to the Favorite List.

   Note: You can use the number pad buttons to enter the channel number, or select the Page Up or Page Down option to move quickly through the list.

6. Press the Select button to add the highlighted channel to the Favorite List. A check mark appears next to the channel.

7. Repeat steps 5 and 6 until you have added all the channels that you want.

8. To delete a channel from the Favorite Lists, select the channel in the list. The check mark next to the channel disappears.

9. Select the Save option to save all changes to the Favorite List.

Making a Favorite List Active

If the Program Guide is open, press the Guide button to select the next Favorite List. Press the Guide button again to scan through all the available lists.

Note: This works only if you have added channels to the Favorite List. If you have not created any Favorite List, pressing the Guide button switches the receiver between the All Chan and All Sub.

1. Press the Menu button.

2. Select the Favorites option.

3. Highlight the desired Favorite List.

4. Select the Save option.

Note: If you try to make an empty Favorite Lists active, the receiver displays an Error message. You must add at least one channel to this Favorite List before you can make it active.
CHANGING THE NAME OF A FAVORITE LIST

1. Press the Menu button.

2. Select the Favorites option.

3. Select the Favorite List that you want to change.

4. Select the Edit List Name option.
   
   Note: You cannot change the name of the All Chan or All Sub list.

5. Select a letter in the keypad area on the menu. Repeat to spell out the desired name. You can enter up to eight characters, including spaces. If needed, select the space option to insert a space in the name or the <back option to correct a letter.
   
   Note: A list must have at least one character. Two lists cannot have the same name.

   Note: At any time, you can select the Clear option to clear the name.

6. Select the Save option to save all changes.

USING TIMERS

Event timers allow you to set up the receiver to tune in and/or record a future “event,” that is, a program. You can set an automatic event timer for a program listed with start and stop times in the Program Guide. A manual event timer allows you to set custom start and stop times for a timer.

EVENT TIMER TYPES

Reminder Reminds you that a program is about to start.

Auto-Tune Reminds you that a program is about to start; tunes the receiver to the program when it begins.

VCR Reminds you that a program is about to start; tunes the receiver to the program when it begins; starts a VCR to record the program.

Note: Most TV programs and films are copyrighted. In some cases, copyright law may apply to private, in-home recording.

Tip: You can use an Auto-Tune event timer to remind you that a program is about to start and then automatically tune the receiver to the right channel.
EVENT TIMER FREQUENCIES

**Once** Applies to a one-time program. If the program time changes, this timer operates at the new time. The receiver *deletes* this timer when the timer operates.

**Mon.-Fri.** Applies to a program that is scheduled for Monday through Friday on the same channel at the same time each day.

**Daily** Applies to a program that is scheduled for Monday through Sunday on the same channel at the same time each day.

**Weekly** Applies to a program that is scheduled for once a week on the same channel at the same time on the same day.

**Note:** You can record only the program to which the receiver is tuned. If you open any menu (including the Program Guide) while recording a program on videotape, the menu also will be recorded. If you change the volume or press the Mute button, the volume change may be recorded — depending on how your TV and VCR are set up. If a program time changes by more than twenty-four hours, the timer will not operate.

BEFORE AN EVENT TIMER OPERATES

Five minutes before an event timer operates, the receiver displays a small blinking “clock” symbol on the TV screen. This symbol disappears when the program begins. While the symbol is displayed, you may do either one of the following.

**Either:** Press the remote control Cancel button to clear the symbol from the TV screen. This does *not* affect the timer; it *will* operate.

Or: Press the remote control Information button to see more information on the event timer. If you do this, you will have the following choices:

Select the **OK** or **Cancel** option to continue with the event timer.

Or: Select the **Stop Timer** or **No** option to stop the event timer.
Using Timers

**Note:** This stops only this instance of a Mon.-Fri., Daily or Weekly timer. The timer will operate the next time it is scheduled. To stop all operations of such a timer, you must delete the timer. For a Reminder Event Timer, instead of having the option to stop the timer, you have the option to tune to the program.

**SETTING UP AN AUTOMATIC EVENT TIMER**

1. Select a future program using the **Browse Banner, Themes Menu** or the **Program Guide**.
2. Select a **Timer Type** option.
3. Select a **Timer Frequency** option. Notice that a check mark displays in the box.
4. Select the **Create** option to save the event timer.

5. The receiver displays a timer symbol in the **Program Guide**, and also when you press the Information button to get information about the program.

**SETTING UP A MANUAL EVENT TIMER**

1. Press the Menu button.
2. Select the **Timers** option.

Tip: You may start any timer one minute early. But if you set back-to-back event timers and the second one starts early, the first one will end early. An event timer cannot start early for a pay per view program.

Tip: Use the **Program Guide** or your printed television guide to see when the program(s) starts and stops — before you go to the **Set Date/Time for Manual Timer** menu.
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3. Select the Create option. The receiver displays the Create a Manual Event Timer menu.
4. Select a Timer Type option.
5. Select a Timer Frequency option.
6. Select a channel:
   - **Either:** Highlight a channel using the Up or Down arrow button. Then, press the Select button.
   - **Or:** Enter a channel number using the number buttons.
7. Select the Set Date/Time option. The receiver displays the Set Date/Time for Manual Timer menu.
8. Use the number buttons to enter the Start Time (this includes selecting AM or PM) and the End Time, (this includes selecting AM or PM).
9. Use the number buttons to enter the Date.
10. Select the Create Timer option.
11. To create another event timer,
   - **Either:** select the Create option again.
   - **Or:** If you do not want to create another event timer, press the Cancel button.

   **Note:** You cannot set a manual event timer for a pay per view event.

**QUICK RECORD**

You can quickly create a one-time VCR Event Timer. Do the following.

1. Highlight a future program in the Browse Banner, the Program Guide or a Themes menu.
2. Press the Record button.

   **Note:** For this record function to work, you must set up the receiver to control your VCR. See page 41 for more information.
3. The receiver displays the **Create an Event Timer** menu.

![Create an Event Timer menu](image)

4. If you want to start the timer one minute early, select the **Start 1 min. early** option.

![Start 1 min. early option](image)

5. Select the **Yes** option.

![Yes option](image)

**OVERLAPPING EVENT TIMERS**

If you try to create event timers for overlapping programs, the receiver displays a menu with the dates and times of both programs. The receiver also displays this menu if a program time has changed, causing one timer to overlap another. You *must* delete or edit one of the timers.

![Overlapping event timers](image)

**MAXIMUM NUMBER OF EVENT TIMERS**

You can create a limited number of event timers. If you try to create more, the receiver displays a menu giving you the option to delete an existing timer. If you do not delete an existing timer, you will *not* be able to create any new ones.

**Note:** The receiver deletes *Once* event timers when they operate. You *must* delete all other types of event timers yourself.
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EDITING AN EVENT TIMER

- You can edit almost any feature of an event timer.
- You can edit both automatic and manual event timers.
- Editing an automatic event timer converts the timer to a manual event timer that operates at the times you set, not the actual program times.

1. Press the Menu button.  

2. Select the Timers option.

3. The receiver displays the Event Timer Management menu.

4. Select the event timer that you want to edit. A check mark appears in the box next to the event timer. Select the Edit option.

5. You may change the Timer Type, Timer Frequency, or Channel. To do this, select each option that you want.

6. If you want to change the Start Time, the End Time, or the Date, select the Set Date/Time option to display the Set Date/Time for Manual Timer menu. Otherwise, skip to step 9, below.

7. Use the number buttons to enter the Start Time (this includes selecting AM or PM) and the End Time (this includes selecting AM or PM).
8. Use the number buttons to enter the **Date**.

9. Select the **Create Timer** option.

10. To edit another event timer,
    
    **Either:** highlight that timer and select the **Edit** option again.
    
    **Or:** If you do not want to edit another event timer, press the Cancel button.

**DELETING AN EVENT TIMER**

1. Press the Menu button.

2. Select the **Timers** option.

    The receiver displays the **Event Timer Management** menu.

![Event Timer Management Menu](image)

3. Select an event timer that you want to delete. A check mark appears in the box next to the event timer.

4. Move to **Delete** and press Select on the remote.

    Do this again for any other timer(s) that you want to delete.
REVIEWING EVENT TIMERS

You can review event timers by using the Event Timer Management menu.

1. Press the Menu button.

2. Select the Timers option.

The receiver displays the Event Timer Management menu.

Creating VCR Event Timers

- To use VCR Event Timers, you must connect the receiver’s back panel audio/video outputs to the audio/video inputs on the VCR.

- To use VCR Event Timers, you must set up the receiver to control the VCR (see page 41 to learn how to do this). If the receiver can’t control the VCR, use an Auto-Tune Event Timer to tune the receiver to the channel you want to record. Use the timers built into the VCR to start and stop the VCR at the right times.

LOCKS, BLACKED-OUT PROGRAMS, AND EVENT TIMERS

You must enter the receiver password before you can create an automatic event timer for a locked program, and you must order a pay per view program before you can create such a timer for it. You can create a manual event timer for a locked program without entering the password. However, if you do this, or if the program is blacked out in your area, when the event timer operates the receiver may display only an error or password entry menu. If you have set a VCR Event Timer, the VCR will record only that menu.

POWER OFF AND EVENT TIMERS

If the receiver is OFF at the time an Auto-Tune or VCR Event Timer is scheduled to operate, the receiver will turn ON. Once the event has ended, the receiver will turn OFF, unless you pressed any remote control or receiver front panel buttons during the time that the timer was active.

If the receiver is OFF at the time a Reminder Event Timer is scheduled to operate, the timer will turn the receiver ON and tune it to the channel you last watched. The receiver will then display the reminder menu. You will have a few seconds to respond. If you do not respond to the reminder menu, the receiver will turn OFF.
**SETTING UP THE RECEIVER AND VCR TO USE A VCR EVENT TIMER**

The receiver uses an IR signal to control the VCR. This signal is much stronger than the signal the remote uses, so it can bounce off walls or other objects on its way to the VCR. This works in most home setups. However, shelves or smoked glass doors between the receiver and the VCR may block the signal. Also, if the signal must cross a very large room, or bounce off curtains, it may not be strong enough to control the VCR. Make sure that nothing blocks the signal, and that the signal can bounce off relatively nearby, light-colored, smooth surfaces.

1. Press the Menu button.

2. Select the System Setup option.

3. Select the Installation option.

4. Select the VCR Setup option.

5. **Either**: Enter the 3-digit code number, from the tables, using the number pad buttons.

   **Note**: The tables containing the code number you need to program your remote to control a VCR can be found in the instructions that came with the remote.

   **Or**: Highlight each digit of the VCR code, and then press the Up or Down arrow button until you reach the correct number and then press Select.

   Make sure the VCR is turned ON and the switch is set to 3 or 4 (whichever you use). Insert a rewound tape on which you want to record. The receiver starts the VCR recording, but does not turn ON the VCR, so you must do this yourself.

6. To test the new code, highlight the Test option. The receiver displays a message warning you to make sure the VCR is turned ON.
7. Press the Select button to start the test. Your VCR records for a few seconds, stops, and then rewinds. The receiver displays a message saying that your VCR test is complete. Follow the instructions on the message. If your VCR did not do the test, enter another code from the table. Repeat step 6 and this step.

Once you have found the correct VCR code:

Either: Select the Save option to save the VCR code you entered and return to the Installation and Setup menu,

Or: If you want to return to the Installation and Setup menu without saving the VCR code just entered, press the Cancel button.

**USING LOCKS**

**HOW TO SET LOCKS: A TWO STEP PROCESS**

1. Create the locks that you want.

2. Lock the receiver.

   Once the receiver is locked, anyone who wants to access locked items must enter the password.

**WHEN YOU HAVE LOCKED THE RECEIVER**

- If you try to access a locked item or open the Parental and System Locks menu, the receiver displays a message prompting you to enter the password.

- The receiver allows you three tries to enter the correct password. If you fail to enter the correct password, the receiver does not allow more tries for several minutes.

- If you enter the correct password, you can access the locked item or open the Parental and System Locks menu.

- If you exit a locked item or close the Parental and System Locks menu, you must enter the password again to access the item or open the menu again.
**CREATING A PASSWORD**

You must lock the receiver for any receiver Parental Locks you set to take effect. To lock the receiver, **you must first create a password**. If you forget your password, you will need to speak with a Customer Service Representative.

To create a password:

1. Press the Menu button to display the **Main** menu.

2. Select the **Locks** option to display the **Parental and System Locks** menu.

   **Note**: If the receiver displays a message prompting you to enter a password, the receiver has already been locked.

3. Select the **Lock System** option. The receiver displays a message prompting you to enter a password.

   **Note**: If this option appears as **Unlock System** instead, the receiver is already locked.

4. Enter and verify a password, using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password.

5. **Memorize your password**. From now on, you must enter this password to lock or unlock the receiver.

6. Highlight and select the **OK** option. Re-enter the password. All the locks you have set are now in effect.

**CREATING OR CHANGING RATING (CONTENT) CODE LOCKS**

Do the following to set program locks based on rating codes. Then, when the receiver is locked, **only** someone who knows the password can watch these programs.

1. Press the Menu button.

2. Select the **Locks** option.

   If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

3. Select the **Ratings Locks** option.
Highlight the rating that corresponds to the lowest acceptable audience age. Press the Select button to lock the highlighted rating.

**Note:** All ratings that are more restrictive than the selected rating are also selected. For example, if you lock PG-13 rated programs, then all programs with the R, NC-17, and NR/AO ratings are also locked.

4. Select the expanded rating code(s), if you want to also lock these ratings.
5. To unlock a rating code, highlight the code and press Select.
6. Select the Save option to save the changes.
7. If the receiver is not locked, you must lock it to put the locks you just created into effect.

### Creating or Changing Channel Locks

**Note:** You can lock any channel, including pay per view channels.

1. Press the Menu button.

2. Select the Locks option.

3. If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the OK option. Press the Select button.

   Select the Channel Locks option.

4. Highlight the channel that you want to lock. If necessary, press the Up or Down arrow button to see the desired channel. You can also enter each channel number using the number pad buttons.

5. Press the Select button to lock or unlock the highlighted channel. If the checkbox next to the channel has a checkmark, the channel is locked.

6. Select the Save option to save the changes.

*If the receiver is not already locked, you must lock it to put the locks you just created into effect.*
LOCKING THE RECEIVER

1. Press the Menu button.  

2. Select the Locks option. 

3. Select the Lock System option. 

The receiver displays a message prompting you to enter a password.

Note: If this option appears as Unlock System instead, the receiver is already locked.

4. Enter and check a password, using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. Memorize your password. From now on, you must enter this password to lock or unlock the receiver.

5. Select the OK option. Enter the password again.

UNLOCKING THE RECEIVER

If you unlock the receiver, leave the locks unchanged and then lock the receiver again, the same locks will be in effect as before.

1. Press the Menu button to display the Main Menu. 

2. Select the Locks option. 

3. With the receiver locked, you must enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the OK option.

4. Press the Select button.

5. Select the Unlock System option. 

If this option appears as Lock System instead, the receiver is already unlocked.
LOCKING THE RECEIVER FRONT PANEL CONTROL BUTTONS

This keeps anyone from changing the channel, but it does not lock the remote control buttons.

To lock the receiver front panel buttons, do the following:

1. Press the Menu button.

2. Select the **Locks** option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

3. Select the **Front Panel Lock** option.

4. Select the **Yes** option.

5. If the receiver is not locked, you must lock it to put the lock you just created into effect.

UNLOCKING THE RECEIVER FRONT PANEL CONTROL BUTTONS

To unlock the receiver front panel buttons, you must use the remote control.

1. Press the Menu button.

2. Select the **Locks** option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

3. Select the **Front Panel Lock** option.

4. Select the **Yes** option.
**LOCKING PAY PER VIEW PROGRAMS**

This locks all pay per view channels.

You also can lock one or more pay per view channels by using channel locks or rating locks.

1. Press the Menu button.

2. Select the **Locks** option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

3. Select the **Lock PPV** option.

4. If the receiver is not locked, you *must* lock it to put the lock you just created into effect.

*To unlock pay per view programs:*

5. Press the Menu button.

6. Select the **Locks** option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

7. Select the **Unlock PPV** option.

**Note:** When you select this option, you unlock all pay per view channels.

**Note:** If you use a password to unlock a one-time event, all other pay per view channels remain locked.

**HIDING ADULT CHANNELS**

This keeps the **Program Guide**, **Themes** lists, and the **Browse Banner** from displaying adult channels. It keeps anyone from choosing such channels by using the Up or Down arrow buttons or the remote control number pad buttons.

Tip: If this option appears as Unlock PPV instead, pay per view programs are already locked.
To hide adult channels, do the following:

1. Press the Menu button. 

2. Select the **Locks** option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

3. Select the **Hide Adult** option. 

**Note:** If this option appears **Unhide Adult** instead, the adult channels are already hidden.

4. If the receiver is not locked, you must lock it to put the lock you just created into effect.

To un-hide adult channels, do the following:

1. Press the Menu button. 

2. Select the **Locks** option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the Select button.

3. Select the **Unhide Adult** option. 

**Opening a Locked Item, or Opening the Locks Menu**

1. Select an item that is locked. To open the **Parental and System Locks** menu, select the **Locks** option on the **Main Menu**.

2. The receiver displays an **Attention** message telling you that the item or menu is locked.
3. Enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits. As soon as you enter the fourth digit of the password, the receiver highlights the OK option.

4. Press the Select button.

**CHANGING THE RECEIVER PASSWORD**

1. Press the Menu button.

2. Select the Locks option.

If the receiver is locked, enter the password using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the OK option.

3. Press the Select button.

4. Select the Change Password option.

5. Enter the current password using the number pad buttons. As soon as you enter the fourth digit of the password, the receiver highlights the OK option.

6. Press the Select button.

7. Enter the new password using the number pad buttons. As soon as you enter the fourth digit of the password, the receiver highlights the OK option.

8. Either: Select the OK option to change the password. 
   Or: If you do not want to change the password, press the Cancel button or select the Cancel option. You can stop here.

9. Enter the new password again for checking, using the number pad buttons. The receiver displays stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the OK option. Press the Select button.

   *Write down the new password and put it in a safe place.* From now on, you must enter this password to lock or unlock the receiver.

**PERSONAL IDENTIFICATION NUMBER**

You can set up a Personal Identification Number (PIN) for call-in requests only. Anyone calling the Customer Service Center must provide this PIN to make any changes to your account. You may call the Customer Service Center at any time to set up a PIN.
If you forget your PIN, you will need to speak with a Customer Service Representative. The representative may ask for more information to make sure that you are authorized to make changes to your account.

**Using Caller ID**

**Caller ID** displays on your TV the names of people as they call you *if you subscribe* to Caller ID from your local phone company. To use this feature, make sure you have a phone line connected to the receiver and that the Caller ID feature is enabled. After you turn on Caller ID, it stays on until you decide to turn it off.

**Note:** For best performance, make sure your system is grounded as described in *Grounding the System* on page 94.

**Caller ID Screens**

When you receive a call, you will see a Caller ID popup screen.

![Caller ID Screen Example](image)

You can select OK to eliminate the message. If you do nothing, it will disappear after 20 seconds.
Using Caller ID

If you are in a menu when a call comes in, you will see a different Caller ID popup screen.

![Caller ID popup screen]

**TO TURN THE CALLER ID ON AND OFF**

1. Press Menu on the remote and then 6-1-8. The following screen will display.

![Enable/Disable Caller ID setup]

2. **Either**: Move the highlight to **Enable Caller ID** and press Select to enable Caller ID.
   
   **Or**: Move the highlight to **Disable Caller ID** and press Select to disable Caller ID.

3. Move the highlight to **Save** and press Select.
Chapter 3
Using the System

RESETTING THE RECEIVER

If you want to reset the receiver to be the same as when it was shipped from the factory, do the following:

**Note**: Resetting the receiver discards all Favorite Lists except the All Chan and All Sub lists.

**Note**: If you have set any locks on the receiver, and the receiver is locked, these locks will be kept. If the receiver is unlocked, any such locks will be lost. You cannot reset the receiver to default settings to discard a password you have forgotten. Nobody can reset the receiver to bypass a receiver lock.

1. Press the Menu button.

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

3. Select the **Installation** option.

4. Select the **Factory Defaults** option. The receiver displays a Warning message, prompting you to confirm that you want to reset the receiver.

5. Select the **Yes** option to confirm the reset. The receiver resets, and then displays the **Installation and Setup** menu.

CHANGING PROGRAM LANGUAGES

You may be able to change the language of some programs. An alternate language may not be available for all programs. Some programs, such as movies, show at the start whether an alternate language is available. An alternate language applies only to the audio part of a program and does not change the language used in the menus displayed by the receiver.

1. Press the Menu button.

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

3. Select the **Alternate Audio** option.

4. Select the language you want in the **Languages** list.
Note: If the program is available in a language not listed, then selecting the Alternate option selects that language. If the program is available only in the listed languages, then selecting the Alternate option selects English.

5. Either: Select the Save option to save your language choice. The receiver displays the System Setup menu.
   Or: Press the Cancel button to cancel any changes. The receiver displays a Confirmation menu.

6. At the Confirmation menu:
   Either: Select the Yes option to discard any language changes.
   Or: Select the No option to save any language changes.

**CONTROL OTHER DEVICES WITH THE REMOTE**

**REMOTE CONTROL MODES**

You can set the remote to four different modes to control the receiver or other devices. This section explains how to set up the remote to control a device, such as a satellite TV receiver, a TV, a VCR, a cable TV box, a tuner, or an amplifier.

To set the remote to the right mode for a device, use the remote control’s mode buttons, Sat (satellite receiver), TV, VCR (for a VCR or a DVD player), and Aux (“auxiliary,” for a cable TV box, a tuner, or an audio amplifier). To change the mode, press the button for the device you want the remote to control. The mode button flashes once to show you’ve set the remote to that mode.

1. Turn ON the device you want the remote to control, using the device’s buttons or the remote control that came with the device.

2. Find the brand name of the device in the tables that start on page 109. If the brand is not listed, see Scan for Device Codes on page 59.

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 buttons to enter the code for the device.
   **Note:** For 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 audio amplifier or cable TV box.

Tip: You program the remote that came with your receiver to control as many as three other devices.
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 buttons to make sure they work. Sometimes, the Power button may work when other buttons do not. If the code works for other buttons, 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 cannot find the device brand name in the tables, see Scan for Device Codes on page 59.

**CONTROL A TV (OR A SECOND TV)**

**TV MODE BUTTON**

To use the remote to operate a television, then you must press the TV mode button to set the remote to TV mode. The TV mode button’s back light turns ON to show that the remote is set to TV mode. Make sure to keep the remote in TV mode to use the buttons as described in this section.

**TV/VIDEO**

**TV/VIDEO BUTTON**

If the TV has video input options, use this button to switch the TV among those options.

**POWER**

**POWER BUTTON**

Press the Power button to turn the television ON or OFF.

**MUTE**

**MUTE BUTTON**

Press the Mute button to turn off the sound. Press it again to restore the sound.
Control Other Devices with the Remote

**VOLUME BUTTON**

Press the minus (-) side of this button to lower the sound volume. Press the plus (+) side of this button to raise the sound volume.

**SELECT BUTTON**

The Select button works as the Enter button for a TV.

**UP/DOWN (ARROW) BUTTONS**

Use the Up/Down arrow buttons to change channels on the TV.

**RECALL BUTTON**

Press the Recall button to return to the last channel you were watching. Press it again to switch between the last two channels that you watched.

**NUMBER BUTTONS**

Use the Number buttons to enter numbers in a menu, or to go directly to a new channel.

**CONTROL A VCR OR A SECOND VCR**

Some of the features described below may not apply to the VCR. See your VCR owner’s manual for details about the VCR’s features. If a remote control button is not described in this section, it does not work in VCR mode.

Tip: To operate another device such as a VCR, you must first set up the remote to control the VCR, and then press the VCR mode button on the remote.
Chapter 3

Using the System

**VCR Mode Button**

To use the remote to operate a VCR, first set up the remote to control the VCR, then press the VCR mode button to set the remote to VCR mode. The VCR mode button’s back light turns ON to show that the remote is set to VCR mode. Make sure to keep the remote in VCR mode to use the buttons as described in this section.

<table>
<thead>
<tr>
<th>ATTENTION!</th>
</tr>
</thead>
<tbody>
<tr>
<td>You <em>must</em> use the remote control’s VCR mode to control a DVD player.</td>
</tr>
</tbody>
</table>

**Mute Button**

Press the Mute button to turn off the sound. Press it again to restore the sound.

**Volume Button**

Press the minus (-) side of this button to lower the sound volume. Press the plus (+) side of this button to raise the sound volume.

**Select Button**

Press the Select button to play or to resume playing a videotape.

**Up/Down/Left/Right (Arrow) Buttons**

- Press the Up arrow button to stop a videotape.
- Press the Down arrow button to pause a videotape. Press this button or the Select button (Play) to restart the tape.
- Press the Left arrow button to rewind a videotape.
- Press the Right arrow button to forward a videotape.
Use the Number buttons to enter numbers in a menu.

**CONTROL A CABLE TV BOX**

| ATTENTION! | Some of the features described below may *not* apply to the cable TV box. See your cable box owner’s manual for details about the box’s features. If a remote control button is *not* described in this section, it does *not* work for a cable TV box. |

**AUX Mode Button**

To use the remote to operate a cable TV box, first set up the remote to control the cable box, you press the AUX mode button to set the remote to AUX mode. The AUX mode button’s backlight turns ON to show that the remote is set to AUX mode. Make sure to keep the remote in AUX mode to use the buttons as described in this section.

**Mute Button**

Press the Mute button to turn off the sound. Press the button again to restore the sound.

**Volume Button**

Press the minus (-) side of this button to lower the sound volume. Press the plus (+) side of this button to raise the sound volume.

**Select Button**

The Select button works as the Enter button for the cable box.

Tip: Some of the features described in this section may not apply to the cable TV box. See your cable box owner’s manual for details about the box’s features. If a remote control button is *not* described in this section, it does *not* work for a cable TV box. See your cable box owner’s manual for details about the box’s features. If a remote control button is *not* described in this section, it does *not* work for a cable TV box.
Chapter 3

Using the System

UP/DOWN (ARROW) BUTTONS

Use the Up/Down arrow buttons to change channels on the cable box.

RECALL BUTTON

Press the Recall button to return to the last channel you were watching. Press the button again to switch between the last two channels that you watched.

NUMBER BUTTONS

Use the Number buttons to enter numbers in a menu.

STAR BUTTON

Use the Star button to set up the remote control in AUX mode.

CONTROL A TUNER OR AMPLIFIER

Some of the features described below may not apply to the tuner or amplifier. See the device owner’s manual for details about the device’s features. If a remote control button is not described in this section, it does not work for a tuner or amplifier.

AUX MODE BUTTON

To use the remote to operate a tuner or amplifier, first set up the remote to control the device, then press the AUX mode button to set the remote to AUX mode. The AUX mode button’s backlight turns ON to show that the remote is set to AUX mode. Make sure to keep the remote in AUX mode to use the buttons as described in this section.
Control Other Devices with the Remote

MUTE BUTTON

Press the Mute button to turn off the sound. Press the button again to restore the sound.

VOLUME BUTTON

Press the minus (-) side of this button to lower the sound volume. Press the plus (+) side of this button to raise the sound volume.

SELECT BUTTON

This Select button works as the Input Select button for a tuner or amplifier.

UP/DOWN (ARROW) BUTTONS

Use Up/Down arrow buttons to change channels on the tuner or amplifier.

STAR BUTTON

Use the Star button to set up the remote control in AUX mode.

SCAN FOR DEVICE CODES

1. Use the device’s buttons or its remote control to turn it on.
2. Press and hold the mode button for the device, for about three seconds. When all the other mode buttons light up, let go of the button. For example, hold the TV button for a TV.
3. Only for the Aux mode, use the number buttons to enter 0 for a second TV, 1 for a second VCR, or 2 for a tuner or amplifier. For any other mode, skip to step 5.
4. Only for the Aux mode, press the Star (*) button. For any other mode, skip to step 5.
5. Press the Power button.

Tip: You can scan for device codes as described here, or look up the device codes for other devices beginning on page 109.
6. Press the up or down arrow button to set the remote to the next code. The up arrow button scans ahead and the down arrow button scans back. Press the button again to go on with the scan.

7. If the remote reaches the correct code, the device turns off. When this happens, press the Pound button to store the code in the remote. If the code works, the mode button flashes three times.

8. Press the Power button to turn the device back on.

9. Try some other buttons to make sure they work. Sometimes, the Power button works when other buttons don’t.

   **Note:** The mode button for the device starts to flash if you’ve scanned all the codes for that device.

---

**TRY THE DEVICE CODES**

   **Note:** If you just did *Scan for Device Codes*, you don’t need to do this.

1. Use the device’s buttons or its remote control to turn it on.

2. Find the brand name of the device in the tables on page 109. If the brand isn’t listed, please see the section titled *Scan for Device Codes*.

3. **Press and hold** the mode button for the device you want the remote to control, for about three seconds. When all the other mode buttons light up, let go of the mode button.

4. **Only for the Aux mode,** use a number button to enter 0 for a second TV, 1 for a second VCR, or 2 for a tuner or amplifier. **For any other mode,** skip to step 5.

5. Use the number buttons to enter a device code from the table.

6. Press the Pound (§) button. If the code works, the mode button flashes three times.

7. Press the Power button to test if the code works for the device. If it does, the device should turn off.

8. Turn the device back on and try some other buttons to make sure they work. Sometimes, the Power button works when other buttons don’t. If the code works for other buttons, stop here.

9. If the code you entered doesn’t work, do steps 3 through 8 again with another code from the tables.
CHECK THE DEVICE CODES

You can find out what device code you’ve set for each remote mode.
Here’s what to do:

1. **Press and hold** the mode button for the device, for about three seconds. When all the other mode buttons light up, let go of the mode button.

2. Press the **Pound** button twice. The mode button flashes the number for each digit of the device code, with a pause between the groups of flashes. A quick flash is for zero. For example, the mode button flashes five times, pauses, flashes seven times, pauses, and flashes once quickly for the 570 code.

TESTING THE SYSTEM

STARTING A TEST

1. Press the **Menu** button.

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

3. Select the **Diagnostics** option.

TELEPHONE CONNECTION TEST

This test checks that the receiver telephone connection is correct. Select the **Connection** option to begin the test. The receiver displays a message asking you to wait until the test is done.

- If the telephone connection is correct, the receiver displays a **Phone Connection OK** message.
- If the receiver highlights the **Cancel** option, you must choose the **Dial Out** option so the receiver can make a toll-free call to the Customer Service Center. Press the remote control **Select** button to start the call. The receiver displays a message asking you to wait until the call is done. When the call is done, select the **Cancel** option to exit the test menu.
Chapter 3

Using the System

- If the telephone line is not connected properly, the receiver displays a failure message. In this case, check the telephone connection and then repeat the test.

Note: If you have the receiver connected to a DSL (Digital Subscriber Line) phone line, it may cause this test to fail. If so, you will need to install a DSL filter between the receiver and the phone jack on the wall. You should be able to get a DSL filter from your DSL provider, or your local electronic parts store.
Chapter 4
Installation Instructions

HOW TO USE THESE INSTRUCTIONS

These instructions guide you through the installation of a Satellite System which includes your DishPro receiver (included with this manual), and one of two kinds of dish antenna systems.

- **DishPro** antenna systems which can be identified by the Dish-Pro logo shown below.

![](dishpro.png)

- **Legacy** antenna systems which do not have the DishPro logo.

**Important**: You cannot use DishPro LNBFs and switches (those marked with the DishPro logo) with Legacy switches and LNBFs (those without the DishPro logo). You must install your DISH antenna system with either all DishPro LNBFs and switches or all Legacy LNBFs and switches. If you mix the two, the system will not work.

**Note**: If you have a Dish antenna system already installed, and the dish has been pointed for the strongest possible signal strength, you can skip this chapter and go directly to Appendix A to install the satellite receiver in an existing system.

**Note**: If you are installing a DishPro receiver into a system with DishPro LNBFs (and/or switches), you can have as much as 200 feet of cable between the LNBF and the receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say "Swept tested for 2150 MHz." If you have any doubt about this, ask your DISH retailer, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.

**Note**: If you are installing the DishPro receiver into a system with Legacy LNBFs and/or switches (that do not have a DishPro logo), you can have as much as 100 feet of cable between the LNBF and the receiver. However, you must use only RG-6 cable - do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.

**WARNING!** Tighten all the coaxial cable connections only by hand. If you use a wrench you may over-tighten the connections and damage your equipment. Such damage is not covered by the Limited Warranty in the User Guide that came with the system.

Tip: Look for the DishPro logo to determine if your system is a Dish-Pro or Legacy (non-DishPro) system. After you determine the type of system you have, use the instructions that apply to that system.
INSTALLING A DISH 500 ANTENNA

Whether you are installing a DishPro or Legacy system, you need to assemble the satellite dish, mount it, and point it in the general direction of a satellite. To do this, follow these instructions.

FINDING THE SATELLITES

To find the satellites in the sky, you need to know the azimuth (the south, southeast, or southwest direction to the satellites), elevation (the angle up to the satellites), and the skew angles from your location.

Do the following to get these angles:

1. Connect the TV Set Out port on the receiver’s back panel to the television’s RF Tuner Input using a coaxial cable. Make sure that the TV is tuned to the same channel as the Channel 3/4 Switch on the receiver’s back panel (for example, if this switch is at “3,” the TV must be tuned to Channel 3).

   ![Diagram of TV Set Out, Receiver, and Television](image)

   **Note**: You may choose other connections between your receiver and TV. See page 13 for more information.

2. Make sure that the remote control batteries are fresh, and are installed properly. Press the SAT mode button on the remote to make sure the remote is in SAT mode to control the satellite receiver.

3. Turn ON the television and receiver.

4. Go to the Point Dish/Signal menu, by opening the Main Menu and pressing 6-1-1 (unless the receiver already displays this menu).

   ![Dish Point Setup Menu](image)

   **Tip**: When you select the Dish 500 option, you will see the Dish 500 angles. Otherwise, the angles for the Dish 300 are displayed.

5. Enter your ZIP code in the ZIP Code field.
6. Select the **Dish 500** option.

7. The receiver displays the **Dish 500 Setup** menu. The menu displays the azimuth, elevation, and skew angles. Write down these numbers in the space provided.

8. Select **Cancel** to exit out of this menu and return to the **Point Dish/Signal** menu.

---

### Mounting the Dish

1. With a compass, find the required azimuth angle. Then, use the elevation angle to find out how high the satellites are in the sky from your location. Estimate the angle by comparing what you wrote down and the drawing below.

   ![Diagram of azimuth angles]

2. Make sure the dish is located so that nothing blocks the line of sight to the satellites. Mount the mast to a solid surface so that the dish antenna cannot move, even during windy condition, or be bumped out of adjustment. Keep in mind that physical and environmental conditions can block your satellite dish’s ability to receive a clear satellite signal.

   Mount the dish so there are no obstacles between the dish and the satellite. This will help keep the signal strength strong even in bad weather. Obstacles that can block the signal include plant growth, and eaves and overhangs on your house.

   **Note:** Never mount to a tree.

   ![Diagram of dish placement]

3. Align the top part of the mast so that it is absolutely vertical, as shown below. If the top part of the mast is off vertical by only a few degrees, it will be difficult or maybe even impossible for you to find the satellites. Take at least two readings with a bubble level, on the upper mast, that are 90 degrees apart from one another.
4. Assemble the satellite dish as shown below.

**Note:** There are steps that require you to run cable through parts of the antenna assembly, so do not connect the LNBF(s) or the Y Bracket and do not tighten the mast clamp on the mast until specifically instructed.

Tip: Once the skew angle is set, do not try to fine-tune this angle when aiming the dish.

5. Loosen both skew bolts and set the skew by rotating the dish mounting bracket to align the red mark with the required angle on the skew scale which you wrote down on page 65. Tighten the skew bolts securely to keep the dish from rotating.
6. Set the elevation by tilting the dish mounting bracket to align the red edge with the required angle on the elevation scale. Tighten the elevation bolts, but do not tighten the pivot bolt at this time.

**INSTALLING A DISHPro DISH 500 SYSTEM**

The following instructions are for installing a DishPro receiver in a system with a DishPro Twin LNBF. If you are installing a multi-dish system, you will need to follow these instructions and then the instructions that begin on page 72. If you are installing a DISH 500 with Legacy LNBFs (with no DishPro logo), go to *Installing a DISH 500 Legacy System* beginning on page 79.

**Important**: You cannot use DishPro LNBFs and switches (those marked with the DishPro logo) with Legacy switches and LNBFs (those without the DishPro logo). You must install your DISH antenna system with either all DishPro LNBFs and switches or all Legacy LNBFs and switches. If you mix the two, the system will not work.

**Note**: If you are installing a DishPro receiver into a system with DishPro LNBFs (and/or switches), you can have as much as 200 feet of cable between the LNBF and the receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say "Swept tested for 2150 MHz." If you have any doubt about this, ask your DISH retailer, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.
Chapter 4

Installation Instructions

1. Thread the RG-6 coaxial cable through the mast (optional), support arm and the Y-bracket. This cable should be long enough to run from your receiver to your LNBF. See *Grounding the System* on page 95 for detailed cable installation instructions.

![Diagram of cable threading through mast and Y-bracket]

2. Connect the RG-6 cable from the DishPro **Satellite In** connection on the back of the receiver directly to port 1 of the DishPro Twin LNBF, as shown below.

   **Important**: Be sure there are no multi-dish switches between the LNBF and the receiver.

![Diagram of cable connection to LNBF]

3. Attach the LNBF to the Y-bracket, using the two LNBF screws.

4. Slide the dish assembly down onto the mast if not already installed. Make sure the pivot bolt rests on the top of the mast. Turn the dish assembly so that it points in the general direction of the satellites, using the azimuth angle from page 65.

5. You should see the **Point Dish/Signal** menu. If not, open the **Main Menu**, select **System Setup**, then **Installation**, then **Point Dish/Signal** or press 6-1-1 on the remote.
6. Select **Check Switch**. The **Check Switch** screen will open.

7. **Select Check**. The receiver shows you a message that it is checking the switches.

8. When the check switch procedure finishes, you should see an installation summary screen similar to the one shown on the following page. In the **Satellite** line, you should see the word “Conn,” twice. In the **Device** line, you will see the word “Twin” twice. In the **LNBF** line, you should see “twin-1.” This indicates that your receiver has confirmed the connection with Port 1 on your DishPro Twin LNBF is working. If your **Installation Summary** screen matches this, you can go directly to step #10. If not, do one of the following:

   - If “Xs” appear in the **Satellite** line, recheck and tighten all the connections in your system, and then select Retest to run **Check Switch** again.

   - If “Twin-2” is in the **LNBF** line, your receiver is connected to Port 2 of the DishPro Twin LNBF. Disconnect the cable and reconnect it to Port 1 of the LNBF, and then select **Retest** to run **Check Switch** again.

   - If you happened to pick up a satellite at this point, you may see “110” or “119” in the **Satellite** line.

     - If “119” shows under **Dish Input 1**, then go to step #10. If “119” shows under **Dish Input 2**, move the dish about 9 degrees to the east, and then select **Retest** to run **Check Switch** again.

     - If “110” shows under **Dish Input 2**, then go to Step #10. If “110” shows under **Dish Input 1**, move your dish about 9 degrees to the west, and then select **Retest** to run **Check Switch** again.

**Tip:** If, by accident, a satellite is detected through the wrong side of the LNBF, the dish needs to be turned to line up the satellite signal to the correct side of the LNBF.
9. Select **OK** to return to the **Point Dish/Signal** screen. Make sure the check mark is next to **119 West**. If not, move the highlight to **119 West** and press Select. Notice the signal strength bar. This is used to help you aim the dish by showing the strength of the signal you are receiving. Look at the signal strength bar while you aim the dish.

**Important:** Do not change the skew setting.

10. Turn the dish back and forth **very slowly**, until the signal strength bar turns **green**. This shows you’ve found the signal.

![Diagram of dish setup](image)

**Tip:** Have one person aim the dish while another watches the signal strength or listens to the signal tone.

**Tip:** Don’t stand in front of the dish while you aim it, because your body will block the satellite signal. After you adjust the aim, let go of the dish so that it can settle back in place by itself.

**Note:** If you cannot find the signal, turn the dish back to the first azimuth angle. Then, loosen both elevation bolts **just enough** so you can tilt the dish. Tilt the dish up by two degrees, and then tighten both bolts. Now, turn the dish back and forth again. **If you still can’t find the signal,** tilt the dish up again **very slightly** and turn the dish back and forth until you find the signal.

11. When the signal strength bar is **green**, turn the dish back and forth **just a little**, to where the signal strength bar shows the strongest signal. When you find the strongest signal, tighten both mast clamp bolts. Then loosen both elevation bolts, **just enough** so you can tilt the dish. Tilt the dish up and down **just a little**, to where the signal strength bar shows the strongest signal. **Do not adjust the skew.** When you find the strongest signal, tighten all bolts in the dish assembly so the dish cannot be moved.
Installing a DishPro DISH 500 system

12. Verify reception from both satellites. Select the Check Switch option. When the Check Switch menu opens, select Check. The receiver shows you a message that it is checking the switches. When the procedure is finished, you will see an Installation Summary screen similar to the one shown below. Confirm that you have signals from both the 110 West and 119 West Satellites, that you see “All” twice in the Transponder line, and that the message “Satellite reception verified” is displayed. Select Cancel to exit this menu.

![Installation Summary Screen]

13. If you do not see “110,” under Dish Input 2:
   - Make sure the skew angle you wrote down on page 65 is exactly the same as the skew angle you set in step #5 on page 65. If it is not, reset the skew angle as described on page 66. After you reset the skew angle, go back to page 70, and start over from step #10.
   - If “119” is shown under Dish Input 2, move the dish approximately 9° to the east and restart the procedure at step #6.

14. Look at the Point Dish/Signal menu. If you have good signal strength with the check mark in 119 West, move the check mark to 110 West. If you have good signal strength on 110 West, go to step #15. If you do not have good signal strength with the check mark in 110 West, repeat Step #12, and fine-tune the dish but with the check mark in 110 West instead of 119 West. While the 110 West and 119 West signals will not be equal, you should be able to fine-tune the dish until you have the strongest possible signal from both satellites. When you have finished this, select Check Switch. When the Check Switch menu opens, select Check to run Check Switch again.

15. Select Cancel to exit the Point Dish/Signal menu. An Attention screen will open asking the mounting and positioning of your dish is complete with a “Locked” indication in the Point Dish/Signals screen. If the answer is yes, select Yes.

   If the answer is No, you will need to repoint your dish following the preceding steps until the mounting and positioning is complete and you do have the “Locked” indication.

16. After you select Yes, the receiver will begin taking a software upgrade. You will see a Warning that “Vital program information will now be downloaded into your receiver.” You will also see a status bar showing the progress of this upgrade.
17. When the software upgrade is complete, you will see a message that your receiver’s memory is being upgraded.

While this message is displaying, the green power light on the receiver’s front panel will blink. Do not disturb the receiver while the green light is blinking.

If you will be installing a multi-dish system, follow the instructions that begin below. If not, skip to the section that begins on page 94 titled *Grounding the System* for instructions on how to ground your system.

**INSTALLING A MULTIPLE DISH DISHPRO SYSTEM**

**Important:** You cannot use DishPro LNBFs and switches (those marked with the DishPro logo) together with Legacy switches and LNBFs (those without the DishPro logo). You must install your DISH antenna system with either all DishPro LNBFs and switches or all Legacy LNBFs and switches. *If you mix the two, the system will not work.*

**Note:** If you are installing a DishPro receiver into a system with DishPro LNBFs (and/or switches), you can have as much as 200 feet of cable between the LNBF and the receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say "Swept tested for 2150 MHz." If you have any doubt about this, ask your Dish retailer, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.

Once you have installed the DISH 500 with DishPro LNBFs (using the preceding instructions), you can now install a DISH 300 with a single DishPro LNBF as follows:

1. Turn on the television and the receiver if they are not already on. You should see the *Point Dish/Signal* screen. If not, open the **Main Menu** and press 6-1-1 on the remote.

2. Make sure there is a check mark next to the satellite your dish will be pointing at. If there is not, use the Up and Down arrows on the remote to move the highlight to the box next to the correct satellite, and then press select on the remote.

3. Enter your Zip code to get the necessary azimuth and elevation. Write these down.

4. Connect an RG-6 cable from the **Satellite In** port on the DishPro receiver’s back panel directly to the single DishPro LNBF on the DISH 300. Make sure there are no multi-dish switches between the LNBF and the DishPro receiver.

5. Select **Check Switch** from the **Point Dish/Signal** menu. When the **Check Switch** screen opens, select **Check**.

Azimuth: ______
Elevation: ______
6. When Check Switch is complete, you will see an **Installation Summary** screen similar to the one shown below.

![Installation Summary Screen]

The **Installation Summary** should contain the following information to show your receiver is connected to the DishPro Single LNBF:

- **LNBFs** - Single
- **Dish Input** - 1
- **Satellite** - Conn

If your screen matches this description, go to step #8. If not, do one of the following:

- If “Xs” appear in the Satellite line, check all connections and then select **Retest** to run **Check Switch** again.
- If, by chance, the number for the satellite you want to point at appears on the Satellite line, continue on to the next step.

7. Select **OK** to exit back to the **Point Dish/Signal** menu.

8. Point the dish for the strongest possible signal, following the instructions that came with it.

9. Connect any switches in your system, using the instructions that came with the switch(es) and the DishPro wiring diagrams starting on page 74.

10. Select **Check Switch** from the **Point Dish/Signal** menu. When the **Check Switch** menu opens, select **Check**. When the procedure completes, you will see the **Installation Summary** screen again. This time you should have confirmation for all satellites within line-of-sight of your dish(es). You should also see that the switch(es) in your system have been correctly identified. Refer to the DishPro wiring diagrams for examples of installation summary screens.

11. Select **OK** to exit this menu, and then **Cancel** to exit the **Point Dish/Signal** screen.
Installation Instructions

**DISHPro Wiring Diagrams**

**DISH 500, One DISHPro Twin LNBF, Two DISHPro Receivers**

**WARNING!** This diagram leaves out grounding for clarity. Make sure you ground the system in accordance with the *National Electrical Code* (NEC) and all local electrical codes. See *Grounding the System* on page 94 for more information.

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below.
**DISH 500, ONE DISHPro QUAD LNBF, FOUR DISHPro RECEIVERS**

This diagram leaves out grounding for clarity. Make sure you ground the system in accordance with the *National Electrical Code* (NEC) and all local electrical codes. See *Grounding the System* on page 94 for more information.

Warning: When you set up your system following this diagram and run Check Switch, the Installation Summary screen should look similar to the one shown below.
**DISH 500 with a DishPro Twin LNBF, One DISH300 with a DishPro Single LNBF, One DP34 Switch, Four DishPro Receivers (all DishPro)**

WARNING! This diagram leaves out grounding for clarity. Make sure you ground the system in accordance with the National Electrical Code (NEC) and all local electrical codes. See Grounding the System on page 94 for more information.

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below.
**DISH 500, DISH 300, THREE SINGLE-OUTPUT DISHPRO LNBFs, ONE DP34 SWITCH, FOUR DISHPRO RECEIVERS (ALL DISHPRO)**

**WARNING!** This diagram leaves out grounding for clarity. Make sure you ground the system in accordance with the National Electrical Code (NEC) and all local electrical codes. See *Grounding the System* on page 94 for more information.

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below.
THREE DISHES, FOUR SINGLE-OUTPUT DISHPro LNBFs, ONE DP44 SWITCH, FOUR DISHPro RECEIVERS (ALL DISHPro)

WARNING! This diagram leaves out grounding for clarity. Make sure you ground the system in accordance with the National Electrical Code (NEC) and all local electrical codes. See Grounding the System on page 94 for more information.

A DishPro Twin LNBF could be substituted for these single LNBFs

When you set up your system following this diagram and run Check Switch, the Installation Summary screen should look similar to the one shown below.

![Installation Summary](image-url)
INSTALLING A LEGACY DISH 500 SYSTEM

If the LNBFs in your system do not have the DishPro logo, you are installing a Legacy system.

• **DishPro** antenna systems which can be identified by the Dish-Pro logo shown below.

![DishPro Logo]

• **Legacy** antenna systems which *do not* have the DishPro logo.

**Important:** You cannot use DishPro LNBFs and switches (those marked with the DishPro logo) with Legacy switches and LNBFs (those without the DishPro logo). You must install your DISH antenna system with either all DishPro LNBFs and switches or all Legacy LNBFs and switches. If you mix the two, the system will not work.

**Note:** If you have a Dish antenna system already installed, and the dish has been pointed for the strongest possible signal strength, you can skip this chapter and go directly to Appendix A to install the satellite receiver in an existing system.

**Note:** If you are installing a Legacy system with two single or dual LNBFs, follow the instructions that begin below. If you will be installing a Legacy system with a Twin LNBF, skip the following section and go to page 82.

**Note:** If you are installing a multi-dish system, follow either these instructions or the instructions for installing a system with a Twin LNBF, and then follow the instructions that begin on page 86 to complete your system.

INSTALLING A LEGACY DISH 500 SYSTEM WITH TWO SINGLE OR DUAL LNBFs

**Note:** If you are installing a Legacy LNBF (that does not have a DishPro logo), you can have up to 100 feet of cable between the satellite dish’s LNBF connectors and the receiver, if you use only RG-6 cable. Also, be sure that any outdoor connections are made using waterproof F- connectors.

1. Once you have the dish mounted by completing all the steps in the section titled *Mounting the Dish*, label both ends of one coaxial cable “119”, and both ends of the other coaxial cable “110.” These cables need to be long enough to reach from the receiver to the LNBF. If you are installing dual LNBFs and want to support two receivers or multiple dishes (see the *Alternate Legacy Wiring Diagrams* on page 88), you will also need to thread two additional cables. If you do, make sure you also label one cable “119” on both ends, and the other “110” on both ends. See the section *Grounding the Dish* on page 94 for detailed cable installation instructions.
2. Thread both coaxial cables through the mast (optional) support arm and the Y-bracket. Make sure the cable(s) labeled “119” are threaded through the 119 side and the “110” cable(s) are threaded through the “110” side as shown.

3. Attach the Y-bracket using the Y-bracket screw. Connect the “119” cable(s) to one LNBF and the “110” cable(s) to the other LNBF. Attach the LNBFs to the Y-bracket using the two LNBF screws.

4. Slide the dish assembly down on the mast if not already installed. Make sure the pivot bolt rests on the top of the mast. Turn the dish assembly so that it points in the general direction of the satellites, using the azimuth angle from page 65.

5. Connect the RG-6 coaxial cable from the “119” LNBF directly to the Satellite In connection on the receiver’s back panel. You may temporarily need to use a barrel connector in place of where your switch will go later to complete this step. Do not connect the multi-dish switch at this time.

6. Turn ON the television and the receiver. The Point Dish/Signal menu should be displayed. If not, open the Main Menu and press 6-1-1 on the remote.

7. Make sure the check mark is next to 119 West. If it is not, move the highlight to 119 West and press Select on the remote control.

8. Turn the dish back and forth very slowly, until the signal strength bar turns green. This shows that you have found the signal.
Note: If you cannot find the signal, turn the dish back to the original azimuth setting. Then, loosen both elevation bolts just enough to be able to tilt the dish. Tilt the dish up by two degrees, and then tighten both bolts. Now, try turning the dish back and forth again. Repeat these steps, raising and lowering the elevation, until you find the satellite signal.

9. Once you have a signal, turn the dish assembly back and forth very slightly until the signal strength bar displays the strongest possible signal strength. Tighten the mast clamp bolts. Then, loosen the elevation bolts and adjust the elevation of the dish up and down slightly until the signal strength bar displays a strong signal. Do not adjust skew. Tighten all the bolts in the dish assembly so that the dish cannot be moved.

10. When you have the strongest possible signal, press the Cancel button on the remote to exit the Point Dish/Signal menu. The receiver displays an Attention message asking whether the installation is complete. If the answer is yes, select the Yes option. The receiver will begin taking a software upgrade. You will see a Warning that “Vital program information will now be downloaded into your receiver.” You will also see a status bar showing the progress of this upgrade.

11. Once the software upgrade is complete, you will see a message that your receiver’s memory is being upgraded.

While this message is displaying, the green power light on the receiver’s front panel will blink. Do not disturb the receiver while the green light is blinking.

This message may disappear, your screen may go blank for a few minutes, and the green light may continue to blink. This is normal and does not indicate a problem with the receiver.

12. Connect the “119” cable from the LNBF to the Dish 1 connection on the multi-dish switch. Connect the “110” cable from the LNBF to the Dish 2 connection the multi-dish switch. Connect a cable from the multi-dish switch to the Satellite In port on the receiver’s back panel.

Two dual LNBFs and two SW21 multi-dish switches (second switch optional)
13. Open the **Main Menu** and press 6-1-1 on the remote to again open the **Point Dish/Signal** menu. Select **Check Switch** and then select **Check**. The receiver will check your multi-switch installation. After the system checks the installation, you will see the **Installation Summary** screen. Make sure that the correct switch is displayed and that you have “Satellite reception verified” from both the **110 West** and **119 West** satellites.

14. At the **Point Dish/Signal** menu, select the **110 West** option. Verify that you have a green signal strength bar with a locked signal.

   - If the signal from the **110 West** satellite is weak and you do not see a green signal strength bar, repeat steps #8 and #9 to fine-tune the dish until you have the best attainable signal strength for both the **119 West** and **110 West** satellites.

   - If there is no signal strength on **110 West**, check your connections and select **Check Switch** again. If there is still no signal strength, check to make sure your skew angle is correct, and start over, beginning with step #7 until you have a good signal from both the **110 West** and **119 West** satellites.

15. Connect any other receivers in the system, verify signal reception from the **Point Dish** menu. Turn the receivers OFF so they can take the software upgrade, and then run **Check Switch** to verify signal reception from all satellites.

### Installing a Legacy System with a Twin LNBF

**Note:** If you are installing a Legacy (non-DishPro) LNBF (that does not have a DishPro logo), you *can have up to 100 feet* of cable between the satellite dish’s LNBF connectors and the receiver, if you use only RG-6 cables. Also, be sure that any outdoor connections are made using waterproof F-connectors.

1. After you mount the dish, in accordance with the instructions *Installing a DISH 500 Antenna* that begin on page 63, thread the coaxial cable through the support arm, mast (optional), and the Y-bracket. If you are planning on adding a second satellite receiver, thread another cable through the support arm and the Y-bracket. The cable should be long enough to reach from the LNBF on the satellite dish to the receiver (refer to *Grounding the System* beginning on page 94 or detailed cabling instructions).
2. Attach the Y-bracket, using the Y-bracket screw.

3. Connect the RG-6 cable from the **Satellite In** connection on the back of the receiver *directly to the* Twin LNBF, as shown below. Be sure there are no multi-dish switches between the LNBF and the receiver.

4. Attach the LNBF to the Y-bracket using the two LNBF screws.

5. Slide the dish assembly down on the mast if not already installed. Make sure the pivot bolt rests on the top of the mast. Turn the dish assembly so that it points in the general direction of the satellite, using the azimuth angle from page 65.

6. Turn ON the television and the receiver. The **Point Dish/Signal** menu should be displayed.
If not, open the **Main Menu** and press 6-1-1 on the remote. Select the **119 West** option if it is not already selected.

7. Turn the dish back and forth *very slowly*, until the signal strength bar turns *green*. This shows that you have found the signal.

8. When you have a signal, turn the dish assembly back and forth *very slightly* until the signal strength bar displays the strongest possible signal strength. Tighten the mast clamp bolts. Then, loosen the elevation bolts and adjust the elevation of the dish up and down slightly until the signal strength bar displays a strong signal. *Do not adjust skew.* Tighten all the bolts in the dish assembly so that the dish cannot be moved.

9. When you have the strongest possible signal, press the CANCEL button on the remote to exit the **Point Dish/Signal** menu. The receiver displays an **Attention** message asking whether the installation is complete. If the answer is yes, select the **Yes** option. The receiver will begin taking a software upgrade. You will see a **Warning** that “Vital program information will now be downloaded into your receiver.” You will also see a status bar showing the progress of this upgrade.
If the answer is no, you will need to repoint your dish following the preceding steps until the mounting and positioning is complete and you do have the “locked” indication.

10. When the software upgrade is complete, you will see a message that your receiver’s memory is being upgraded.

While this message is displaying, the green power light on the receiver’s front panel will blink. Do not disturb the receiver while the green light is blinking.

11. When the software upgrade finishes, you need to return to the Point Dish/Signal screen. To do this, open the Main Menu and press 6-1-1 on the remote.

12. Select Check Switch from the Point Dish/Signal menu. When the Check Switch menu opens, select Check. The receiver will check your satellite system. After the system checks your installation, an Installation Summary screen will appear. Verify that the 500 Twin is displayed, and the 119 and 110 satellites are verified. Select OK.

13. At the Point Dish/Signal menu, select the 110 West option and verify that you have a green signal strength bar with a locked signal.

- If there is no signal strength on 110 West, check your connections and select Check Switch again. If there is still no signal, confirm that your skew angle is correct, and start over with step #6.

- If the signal from the 110 West satellite is weak and you do not see a green signal strength bar, repeat steps #5, #7, and #8 to fine-tune the dish until you have the best attainable signal strength for both the 119 West and 110 West satellites.

14. Connect any other receivers in the system. Verify signal reception from the Point Dish/Signal menu, allow the receivers to take a software upgrade from the satellite, and then run Check Switch to verify the signal from all satellites.

If you will be installing a multi-dish system, follow the instructions that begin below. If not, you can skip to the section that begins on page 94 titled Grounding the System.
INSTALLED A LEGACY MULTIPLE DISH SYSTEM

When you have installed the DISH 500 with its Legacy LNBF(s), you can add a DISH 300 with a Legacy LNBF to your system as follows (please see the section titled Alternate Legacy Wiring Diagrams for more information on wiring the system).

1. Turn on the television and receiver. You should see the Point Dish/Signal menu. If you do not, open the Main Menu and press 6-1-1 on the remote.

2. On the Point Dish and Signal Strength menu, use the Up/Down/Left/Right arrow buttons to move the highlight to the Satellite field and choose the satellite at which you would like to aim, for example 61.5.

3. Enter your zip code in the ZIP Code field.

4. The receiver displays the azimuth and elevation angles on the menu. Write down these numbers as you will use them later in this procedure.

5. Using these azimuth, and elevation angles, find a location for the satellite dish. Then, use the elevation angle to find out how high the satellite is in the sky from your location. Use the azimuth angle to find out where the satellite is along the horizon (South, Southwest). Make sure nothing blocks the line of sight to the satellites.

6. Mount the satellite dish following the instructions that came with it. Connect the RG-6 cable directly from the LNBF to the Satellite In port on the receiver’s back panel. Make sure there are no multi-dish switches between the LNBF and the receiver.

7. When the dish is mounted, you should still be on the Point Dish/Signal menu. If not, open the Main Menu and press 6-1-1 on the remote.

8. Look at the Signal Strength bar. Turn the dish back and forth very slowly, until the signal strength bar turns green. This shows that you have found the signal.

   Note: If you cannot find the signal, turn the dish back to the original azimuth setting. Then, loosen both elevation bolts just enough to be able to tilt the dish.
9. Tilt the dish up by two degrees, and then tighten both bolts. Now, try turning the dish back and forth again. Repeat these steps, raising and lowering the elevation, until you find the satellite signal.

10. When you have a signal, turn the dish assembly back and forth very slightly until the signal strength bar displays the strongest possible signal strength. Tighten the mast clamp bolts. Then, loosen the elevation bolts and adjust the elevation of the dish up and down slightly until the signal strength bar displays a strong signal. Tighten all the bolts in the dish assembly so that the dish cannot be moved.

11. Mark the final locations on the mast and mounting bracket with a permanent marker. This assists you later if you have to realign the dish because of movement due to wind or weather. Do not scratch the painted surfaces to mark them. This will cause rusting.

12. Connect the LNBFs to the switch(es) using the instructions that came with your switches. (See the Alternate Wiring diagrams on page 88 for more information.)

13. Connect the switch(es) to the receiver using the instructions that came with your switches.

14. Run **Check Switch** from the **Point Dish/Signal** menu. Verify that you have signals from all the satellites in your system and that the correct switches have been identified.
**Chapter 4**

*Installation Instructions*

**ALTERNATE LEGACY WIRING DIAGRAMS**

**DISH 500, TWO DUAL-OUTPUT LNBFs AND ONE SW44 MULTI-DISH SWITCH, FOUR RECEIVERS**

This diagram omits grounding for clarity. Make sure to ground the system in accordance with the *National Electrical Code* (NEC) and all local electrical codes. See *Grounding the System* on page 94 for guidance on grounding.

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below.
DISH 500, ONE QUAD LNBF, FOUR RECEIVERS

This diagram omits grounding for clarity. Make sure to ground the system in accordance with the National Electrical Code (NEC) and all local electrical codes. See Grounding the System on page 94 for guidance on grounding.

Dish 500
110 and 119

500 Quad LNBF

Note: Each cable carries both the 119 and 110 signals, with proper setup.

to Receivers

When you set up your system following this diagram and run Check Switch, the Installation Summary screen should look similar to the one shown below.
**Chapter 4**

**Installation Instructions**

**TWO DISHES, THREE DUAL-OUTPUT LNBFs, ONE SW64 MULTI-DISH SWITCH, FOUR RECEIVERS**

**WARNING:** This diagram omits grounding for clarity. Make sure to ground the system in accordance with the *National Electrical Code* (NEC) and all local electrical codes. See *Grounding the System* on page 94 for guidance on grounding.

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below.
TWO DISHES, ONE 500 TWIN, ONE DUAL LNBF, TWO RECEIVERS, TWO SW21 MULTI-DISH SWITCHES, TWO RECEIVERS

This diagram omits grounding for clarity. Make sure to ground the system in accordance with the National Electrical Code (NEC) and all local electrical codes. See *Grounding the System* on page 94 for guidance on grounding.

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WARNING

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Note: Each cable carries both the 119 and 110 signals, once you have run Check Switch on each receiver.

When you set up your system following this diagram and run Check Switch, the *Installation Summary* screen should similar to the one shown below.
**Chapter 4**  
*Installation Instructions*

**TWO DISHES, THREE DUAL-OUTPUT LNBFs, ONE SW44 SWITCH, TWO SW21 SWITCHES, FOUR RECEIVERS**

This diagram omits grounding for clarity. Make sure to ground the system in accordance with the *National Electrical Code* (NEC) and all local electrical codes. See *Grounding the System* on page 94 for guidance on grounding.

**Note:** In this installation, only two receivers will get signal from all three LNBFs. The other two receivers will get signal from only two LNBFs.

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below for the two receivers connected to the SW21 switches.
**Alternate Legacy Wiring Diagrams**

**TWO DISHES, ONE QUAD LNBF, ONE DUAL-OUTPUT LNBF, ONE SW64 MULTI-DISH SWITCH, FOUR RECEIVERS**

This diagram omits grounding for clarity. Make sure to ground the system in accordance with the *National Electrical Code* (NEC) and all local electrical codes. See *Grounding the System* on page 94 for guidance on grounding.

![Diagram of Wiring Connections](image)

When you set up your system following this diagram and run **Check Switch**, the **Installation Summary** screen should look similar to the one shown below.

![Installation Summary Screen](image)
GROUNDING THE SYSTEM

After you have installed either the DishPro or Legacy system, you must ground the system, and then connect each receiver to a telephone line, following these instructions.

INSTALLING THE GROUND BLOCK

A properly grounded multi-dish switch can take the place of a ground block. The following instructions apply to a block or a switch.

You may want to install the ground block onto the side of the building, or on some other sturdy structure as close as possible to the power entry ground. Make sure that the location is stable, and that you fasten the ground block tightly to the surface. As stated in Article 820-40 of the National Electrical Code (NEC), locate the ground block as close as possible to the power entry ground.

RUNNING THE COAXIAL CABLES TO THE GROUND BLOCK OR SWITCH

1. Mount the ground block or switch so that its connections are horizontal. This helps keep moisture from leaking into the connections. Using the shortest path possible, run the coaxial cable(s) from the LNBF(s) to the input(s) on the ground block or switch.

2. Put a drip loop in each cable to allow moisture to drip from the cable before it runs into the ground block or switch.

3. Run the ground wire from the ground block or switch to the power entry ground of the building in accordance with the National Electrical Code (NEC) and all local electrical codes.
A ground wire must always be a single piece of wire. Never splice two wires together for a ground. Corrosion and weathering can lead to a poor connection at the splice, making the ground ineffective and dangerous. If you cut the ground wire too short, replace it with a single wire cut to the correct length.

4. Use cable clips to attach the cable to the side of the building. This helps prevent damage.

**RUNNING THE COAXIAL CABLE(S) TO THE RECEIVER(S)**

1. Using the shortest path possible, run the coaxial cable(s) from the ground block or switch to the satellite receiver(s). Do not kink or pinch any cable. Cables should be bent only in gentle curves.

   Do not use a longer cable between the satellite dish and the LNBF than is specified in the DishPro or Legacy system installation instructions. In the case of a Legacy system, you may have to install a line amplifier to boost the satellite signal. Otherwise, the system is more likely to lose the signal during periods of rain, snow, or heavy cloud cover. If your system requires more cable than the limit specified in these installation instructions, you should consider having the system professionally installed.

2. Put a drip loop in each cable at a point before it enters the building. A drip loop allows moisture to drip from the cable before it runs into the building.

   Before drilling any holes in the wall or roof of your building, make sure that there are no wires or pipes in the area of the holes. If you are not comfortable doing this, contact a professional in your area. Follow all safety instructions and building codes.

3. Locate each receiver inside the building, against or near an outside wall. Then drill a hole through the outer wall to pass a cable inside the building. If a receiver is located in an interior room, run a cable through the outside wall, and into an attic, basement, or crawl space in order to reach the receiver.

4. Seal all holes that you drill in the building with silicone or other weatherproof sealant after installation. Once each cable is inside the building, you may attach it to a wall receptacle or directly to a receiver.

   Tighten the 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 in the User Guide that came with the system.
CONNECTING EACH RECEIVER TO A TELEPHONE LINE

You must keep each receiver connected to an active telephone line. Otherwise, you may not be able to order pay per view programs or use all of the DISH Interactive features. Run a telephone cable with a standard RJ-11 connector from each receiver’s back panel Phone Jack to an active telephone connection.

Note: You may be able to use a wireless telephone extender. However, this may not support all the features of some receivers.

You must also set up each receiver for your telephone system (touch-tone or rotary/pulse), and set a telephone number prefix, if you need a prefix to make an outside call.

1. Display the Installation and Setup menu.

2. Select the Telephone System option to display the Telephone System Setup menu.

3. Select the Touch Tone or the Rotary/Pulse option in the Phone Type list.

Note: Usually, you need a telephone number prefix only for business installations. For most residential installations, all you need to do is set the telephone system type. The default setting of No Prefix will allow correct dialing. If this is the case, select the Save option to save the above setting, and stop here. If you do need to set a prefix, then instead of selecting the Save option, go on to step 4.

4. Move the highlight to the No Prefix or the Prefix code option in the Outside Line Prefix list. Press the Select button to select the highlighted option.

Tip: If you have the receiver connected to a Digital Subscriber Line (DSL) on the phone line, you may need to install a DSL filter between the receiver and the telephone jack. You can obtain the filter from your DSL provider.
5. If you selected the **No Prefix** option, highlight **Save** to finish.

If you selected the **Prefix code** option, the receiver displays two boxes (highlighting the top box) where you must enter the digits. To do this, do the following:

a) Enter the number of digits required to obtain an outside line in the top box.

b) Move the highlight to the bottom box.

c) Enter the exact sequence you dial the phone to obtain an outside line in the bottom box.

6. Move the highlight to the **Save** option. Press the **Select** button to save the settings.
Chapter 5
Reference

Troubleshooting Tables

Use these tables if you have problems using the system before calling the Customer Service Center. Many problems arise from misunderstandings of how the system works, especially when you are just becoming familiar with it. These tables cover many problems, usually with a simple solution for each one. To solve a particular problem, do the following:

1. Review the section in this Guide that relates to the problem.

2. If you cannot find a solution, then find the section in the following tables that relates to the problem.
   - Read the What’s Happening column until you find the problem.
   - Read the information in the Possible Reason column.
   - Try each of the suggested solutions in the What to Do column.

3. For more information, call the Customer Service Center at 1-800-333-DISH (3474), or see www.dishnetwork.com.

Note: Before calling the Service Center, have ready the date of purchase and either your customer account number, the receiver conditional access number, or the receiver model number. Display the Important System Information menu to find these numbers (See Ordering your Programming on page 2). Also, write down any error messages that the receiver displays on the television screen.
This table describes some on-screen messages in the order of their message numbers. Find the message number in the upper right corner of the message displayed on your TV screen, and then find the matching number in this table.

<table>
<thead>
<tr>
<th>Message Number</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>There may be a problem with the multi-dish switch.</td>
<td>Check the coaxial cables and their connections to and from the multi-dish switch. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). If this does not work, call the Customer Service Center for help.</td>
</tr>
<tr>
<td>002</td>
<td>Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal, or there may be other interference.</td>
<td>Note the local weather conditions. Remove any snow or other debris which may have collected on the satellite dish. Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the Point Dish/Signal menu. Consult your installer to re-aim the dish, if necessary, to obtain the strongest possible signal.</td>
</tr>
<tr>
<td>003, 004</td>
<td>The wrong type of coaxial cable may be used in the system, or the cable run length may be too long. Or, there may be a problem with the multi-dish switch.</td>
<td>Make sure the system uses RG6 coaxial cable; if not, call your dealer or installer. Check the dish-to-receiver cable run length; if it is over 100 feet, call your dealer or installer. Check the coaxial cables and their connections to and from the multi-dish switch. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). If this does not work, do the Check Switch test.</td>
</tr>
<tr>
<td>005</td>
<td>The receiver may not yet have been electronically linked with the Smart Card, via the satellite signal. The satellite dish may have moved so that it is no longer picking up the satellite signal. The cable connections may have loosened or have moisture inside. There may be an interruption of the satellite signal.</td>
<td>If you have authorized the receiver, wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked. If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center for help.</td>
</tr>
<tr>
<td>006</td>
<td>The receiver may not be connected to an active telephone line. The Smart Card credit limit may have been suspended.</td>
<td>You must connect the receiver to an active telephone connection at all times. If you install two or more receivers, you must connect each receiver to an active telephone connection at all times. Review your pay per view purchases to check the Smart Card credit limit.</td>
</tr>
<tr>
<td>008</td>
<td>Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.</td>
<td>Install a DSL filter between the receiver and the telephone wall jack. You can obtain the filter from your DSL provider.</td>
</tr>
<tr>
<td>011, 012</td>
<td>Viewers in specific areas are prohibited from watching certain programs. For example, viewers who live close to a particular football stadium may be prohibited from watching football games that are played in that stadium.</td>
<td>Remember that the program providers specify which programs are “blackened out” for which viewers, not DISH NetworkSM.</td>
</tr>
<tr>
<td>013, 014</td>
<td>You may have tried to tune to a program on a channel which you have not bought.</td>
<td>You must buy a channel before you can tune to a program on that channel. Call the Customer Service Center to buy the channel, or if you believe this message was displayed by mistake.</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>015</td>
<td>You may have just plugged in the receiver, and it is acquiring the satellite signal. Or, the receiver may have temporarily lost the signal. Wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked. If not, contact your installer to re-aim the satellite dish.</td>
<td></td>
</tr>
<tr>
<td>018</td>
<td>The receiver may not be connected to an active telephone line. The Smart Card credit limit may have been exceeded. You must connect the receiver to an active telephone connection at all times. If you install two or more receivers, you must connect each receiver to an active telephone connection at all times. Review your pay per view purchases to check the Smart Card credit limit. Call the Customer Service Center for help checking the credit limit, and/or to get authorization to make a purchase.</td>
<td></td>
</tr>
<tr>
<td>019</td>
<td>The Smart Card may be inserted upside down or backwards. Check that the Smart Card is inserted right side up, with the picture on top and the arrow facing into the receiver front panel slot.</td>
<td></td>
</tr>
<tr>
<td>020</td>
<td>The receiver will work only with the Smart Card that was inserted in the receiver when the Customer Service Center authorized the receiver. Insert the proper Smart Card into the receiver front panel slot. Call the Customer Service Center for help.</td>
<td></td>
</tr>
<tr>
<td>021</td>
<td>The Smart Card may be missing or may not be inserted correctly. Check that the Smart Card is fully inserted into the receiver front panel slot.</td>
<td></td>
</tr>
<tr>
<td>022</td>
<td>The receiver may not yet have been electronically linked with the Smart Card, via the satellite signal. The satellite dish may have moved so that it is no longer picking up the satellite signal. The cable connections may have loosened or have moisture inside. There may be an interruption of the satellite signal. If you have authorized the receiver, wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked. If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center for help.</td>
<td></td>
</tr>
<tr>
<td>026</td>
<td>The receiver may have temporarily lost the satellite signal. Wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked. If not, contact your installer to re-aim the satellite dish.</td>
<td></td>
</tr>
<tr>
<td>028</td>
<td>The receiver may need to get new software before you can use it to order pay per view programs. Turn the receiver off. Doing this allows the receiver to “download” new software via the satellite signal. The download may take several minutes; do not disturb or unplug the receiver during this time. When the download is done, you will be able to use it to order pay per view programs.</td>
<td></td>
</tr>
<tr>
<td>032</td>
<td>You may have tried to set a VCR Event Timer without having set up the receiver to control the VCR. You must set up the receiver to control the VCR before you can set a VCR Event Timer. See the User Guide for instructions.</td>
<td></td>
</tr>
<tr>
<td>059</td>
<td>You may have tried to close an installation menu without having done the Check Switch test. If your setup includes a multi-dish switch, you must do the Check Switch test.</td>
<td></td>
</tr>
<tr>
<td>060</td>
<td>You may have aimed the satellite dish at one satellite, but selected the option for another satellite on the Point Dish/Signal menu. Make sure that you have selected the option for the right satellite on the Point Dish/Signal menu. Make sure that the cable(s) for the satellite you have selected are connected to the LNBF that receives signals from that satellite. Re-aim the satellite dish at the right satellite.</td>
<td></td>
</tr>
</tbody>
</table>
### Reference

<p>| | | |</p>
<table>
<thead>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>061</strong></td>
<td>You may have set up the receiver to accept a transmission (a “download”) of the latest operating software via the satellite signal.</td>
<td>It is very important for the receiver to get the latest operating software, so let the receiver do so. The “download” may take several minutes. Do not disturb or unplug the receiver during this time.</td>
</tr>
<tr>
<td><strong>074</strong></td>
<td>The receiver gives you three chances to enter the correct password. If you fail to do so, the receiver “times out” and will not allow you to try again for several minutes.</td>
<td>Wait a few minutes and then try again to enter the password. Note: The “time out” feature is designed to prevent someone from trying password after password until he or she happens to guess the right one and so gains unauthorized access to the receiver.</td>
</tr>
<tr>
<td><strong>078, 079, 080</strong></td>
<td>You may not have connected the receiver to an active telephone line. Or, the telephone line may be defective.</td>
<td>Connect the receiver to an active telephone line. Make sure that the telephone line to which you connect the receiver is working properly. Note: To be able to order pay per view programs, you must keep the receiver connected to an active telephone line at all times. If your setup includes more than one receiver, this applies to each receiver. The receiver uses the telephone line to make toll-free calls, usually in the middle of the night, to send information to the Customer Service Center. Install a DSL filter between the receiver and the telephone wall jack.</td>
</tr>
<tr>
<td><strong>093</strong></td>
<td>You may have set up the receiver to reset itself back to the “factory defaults,” that is, the settings it had when it was shipped from the factory.</td>
<td>If you want to reset the receiver to its factory default settings, select the <strong>Yes</strong> option. If not, select the <strong>No</strong> option.</td>
</tr>
</tbody>
</table>

### DishPro Twin LNBF

<table>
<thead>
<tr>
<th>What’s Happening</th>
<th>What’s Wrong</th>
<th>What You Can Do</th>
</tr>
</thead>
</table>
| When you run Check Switch, you do not see "Twin" identified as a Device or LNB. All entries show “X”s. | • The DishPro Twin LNBF may not be properly connected.  
• Cables may be too long, over 200 feet.  
• Cables may not be rated for 2150 MHz.  
• You may have DishPro Adapter installed on a DishPro receiver.  
• May have a non-DishPro switch or LNB or incompatible accessory device* in the system. | • Check all cable connections in your system and run Check Switch again.  
• Make sure cable length between receiver and DishPro Twin does not exceed 200 feet. Rerun check switch.  
• Make sure cable is rated for 2150 MHz. Rerun check switch.  
• Remove the DishPro Adapter; this device is only for non-DishPro receivers. Rerun check switch.  
• Remove any non-DishPro switches/LNBs or incompatible accessory devices* from the system. All LNBs and switches must be DishPro. Rerun check switch. |
| When you run Check Switch, you see “Twin” identified as the Device/LNB and Satellite shows “Conn” but you do not see “Satellite Reception Verified”. | • The DishPro Twin LNBF is connected but no satellite signal is present. | • Check the point dish/signal screen to confirm you have satellite signal. If not, check your dish antenna to ensure the DishPro Twin is installed properly, the dish is pointed/peaked on the satellite signal and there is nothing blocking the signal path to the dish. Rerun check switch. |
| When you run Check Switch, you see “Satellite Reception Verified” but you see “Feed” instead of “Twin” identified as the Device/LNB. | • The DishPro Twin is connected but something in the system may be blocking the switch commands. | • Check the cable path between the DishPro Twin and the receiver and remove any incompatible accessory devices*. Rerun check switch. |
When you run Check Switch, you do not see "Twin" identified as a Device or LNB, but odd transponders are detected only on one satellite.

- Your box may need a software upgrade.
- You may have DishPro Adapter installed on a DishPro receiver.
- May have a non-DishPro switch or LNB in the system.
- From point dish/signal screen, select 119 west satellite and an odd transponder greater than 10 (e.g., 11). Confirm satellite signal is present. Turn the receiver off and wait 30 minutes. Rerun check switch.
- Remove the DishPro Adapter; this device is only for non-DishPro receivers. Rerun check switch.
- Remove any non-DishPro switches/LNBs from the system. All LNBs and switches must be DishPro. Rerun check switch.

When you run Check Switch, you see "Twin" identified as the Device/LNB but you only have signal confirmed from one satellite.

- The DishPro Twin LNBF is connected but the dish may not be pointed to receive signal from both 110 and 119 satellites.
- If the check switch summary screen shows "119 W" on Dish Input 2, you need to point you dish 9 degrees to the east and repeak your dish. Rerun check switch.
- If the check switch summary screen shows "110 W" on Dish Input 1, you need to point you dish 9 degrees to the west and repeak your dish. Rerun check switch.
- Make sure skew setting is correct for a Dish500 installation at your zipcode. Rerun check switch.

When you run Check Switch, you see "Twin" identified as a Device or LNB, but only odd transponders are detected.

- Cables may not be rated for 2150 MHz.
- Make sure cable is rated for 2150 MHz and all accessory devices are compatible. Rerun check switch.

Getting receiver messages that signal is lost or being acquired.

- Check the weather conditions to see if heavy rain or snow could be temporarily block the signal.
- Check for any obstructions in way of the dish like new growth on trees.
- Wait for weather to clear up and restore signal.
- Clear obstructions from the signal path.

* Compatible accessory devices must pass 2150 MHz signals, 22 KHz signals both directions (per DiSEqC 2.0 specifications), and pass DC power.

**USING THE REMOTE CONTROL**

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>You cannot find the remote control.</td>
<td>N/A</td>
<td>Use the receiver front panel <strong>Control Buttons</strong> to control the receiver until you find the remote. If the remote control is permanently lost or too damaged to use, call the Service Center to order a replacement.</td>
</tr>
<tr>
<td>When you press a button on the remote control, the receiver does not do what you expect.</td>
<td>The remote control may be missing batteries, the batteries may be incorrectly placed in the remote, or the batteries may be weak or dead.</td>
<td>If the batteries are missing or dead, insert fresh AAA-size batteries. Replace the remote batteries with fresh ones.</td>
</tr>
<tr>
<td>When you press the remote control <strong>Power</strong> button to turn the receiver ON, the receiver front panel <strong>Power</strong> light does not light up.</td>
<td>Other lights are too bright. Remote control not operating properly or the batteries are weak or dead. The receiver power cord not plugged into a power outlet, or there may be a problem with the power.</td>
<td>Try other remote control buttons to see if the receiver is responding. Replace the remote batteries with fresh ones. Check that the receiver power cord is not damaged, and that the plug is inserted correctly into the outlet.</td>
</tr>
<tr>
<td>You use a pyramid type IR extender (not a &quot;mouse tail&quot;), and it does not seem to work.</td>
<td>The IR sensor on the extender that receives the remote control signals may not be facing the remote control. The IR cable on the extender that sends the signal to the receiver may not be right in front of the IR sensor on the receiver front panel.</td>
<td>Make sure that the extender that receives the signal from the remote control is facing the right way, so that the IR sensor can receive the remote control signals. Make sure that the IR cable on the extender that sends the signal to the receiver is right in front of the IR sensor on the receiver front panel, so that the receiver IR sensor can receive the signals. If doing the above does not solve the problem, contact the manufacturer of the extenders for assistance.</td>
</tr>
</tbody>
</table>
## HEARING A PROGRAM

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>The receiver front panel Power light is on and there is a good picture on the TV set, but you do not hear any sound.</td>
<td>You may have muted the sound, or set the volume so low that you cannot hear it. The audio connections may not be properly connected.</td>
<td>Check the volume level on the TV or audio device. Turn off the mute or turn up the volume, as required. Check the audio connectors and cables from the receiver to the TV or the sound system. Check the TV speakers or the sound system.</td>
</tr>
<tr>
<td>You hear a foreign language with a program.</td>
<td>You may have set the receiver to select an alternate audio language.</td>
<td>Use the Alternate Audio Language menu to select the language that you prefer.</td>
</tr>
</tbody>
</table>

## WATCHING A PROGRAM

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>The receiver front panel Power light is on, but the TV image: is black (no picture), is frozen, has breakups, has “snow,” or shows small squares of various colors.</td>
<td>The TV set may not be working properly. If the TV and the receiver are working properly, there may be interference with the satellite signal. The TV may be wired to the wrong input.</td>
<td>Make sure that the TV set is plugged into an electrical outlet. Make sure the outlet has electrical power. Make sure that the TV is turned on. If the receiver is connected to the TV using only the RF or VHF connections, make sure that the TV is tuned to channel 3 or 4 (whichever works best in your area) and that the receiver back panel Channel 3/4 Switch is set to the same channel as the TV. Make sure that the TV brightness and contrast are adjusted correctly. Make sure that the TV is connected properly to the receiver. Make sure that the TV’s text mode and closed captioned features are turned off. Set the TV to SVIDEO or VIDEO input. Check that the system has been installed correctly. Make sure that all required coaxial cables are in place, and check that all cable connectors are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the Point Dish and Signal Strength menu. Consult your installer to re-aim the dish, if necessary, to obtain the maximum possible signal strength. Note the local weather conditions. Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal. Remove any snow or other debris which may have collected on the satellite dish.</td>
</tr>
<tr>
<td>The receiver front panel Power light is on, and there is a picture on the TV screen, but the picture: has sparkles or is grainy, has a herringbone pattern, lacks color or vertical hold, or wobbles, or looks “washed out” or fuzzy.</td>
<td>The TV set may not be working properly. If the receiver is connected to the TV using only the RF or VHF connections, there may be a strong local broadcast on the same channel, or a channel adjacent to the one to which the TV is tuned. There may be interference from other nearby electrical devices (such as cellular telephones, computers, microwave ovens, radios, stereos, or TVs).</td>
<td>Make sure that the TV brightness and contrast are adjusted correctly, and that the TV is working properly. Make sure that the TV is connected properly to the receiver. Check other nearby electrical devices as possible sources of interference. Check that all required coaxial cables are in place. Check for moisture or water leaking into all connections. Dry them out if needed, then seal them with coaxial cable sealant. Check the dish-to-receiver cable run length; if it is over 100 feet, call your dealer or installer.</td>
</tr>
<tr>
<td>A “black box” fills almost all of the TV screen.</td>
<td>You may have turned on the Closed Captioned feature on the TV, and put that feature into Text mode.</td>
<td>Using the TV remote control and/or menus displayed by the TV (not the receiver remote control or the menus displayed by the receiver), turn off the closed captioned feature.</td>
</tr>
<tr>
<td>The TV screen is all blue.</td>
<td>You may have connected the receiver to an input on the TV that is incorrect for the signal output from the receiver.</td>
<td>Check your TV owner’s manual for the correct TV input to use for the signal output from the receiver.</td>
</tr>
</tbody>
</table>
### USING THE MENUS

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>You were using a menu, and it suddenly closed.</td>
<td>The receiver has a time-out feature that closes any menu after several minutes of no activity. This will discard any changes you have made, but otherwise does no harm to the receiver.</td>
<td>Start over again.</td>
</tr>
</tbody>
</table>

### USING THE PROGRAM GUIDE OR THE BROWSE BANNER

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the Program Guide, some channels have a red background.</td>
<td>Red means that you have not bought the program. You must buy a channel before you can tune the receiver to it.</td>
<td>If you want to buy a channel, call the Customer Service Center.</td>
</tr>
<tr>
<td>You try to display future programs in the Program Guide or Browse Banner, but find you cannot.</td>
<td>The Program Guide and Browse Banner can display programs scheduled for an extended, but not unlimited time beyond the present.</td>
<td>Try displaying the Program Guide again later. By that time, it may show programs for the time and date you want.</td>
</tr>
<tr>
<td>You try to display programs that have ended in the Program Guide or Browse Banner, but find you cannot.</td>
<td>The Program Guide and Browse Banner can display only programs that have not yet ended. These features cannot display a time earlier than the present.</td>
<td>Contact the program providers for details on past programs.</td>
</tr>
<tr>
<td>When you are using the Program Guide or Browse Banner, some channels are missing.</td>
<td>You may have applied a Favorite List other than the list named All Chan. You may have set up the Program Guide so that when the receiver is locked, the Guide hides adult channels. If your setup includes a multi-dish switch, you may need to do the Check Switch procedure.</td>
<td>You can change the applied Favorite List while using the Program Guide, by pressing the remote control Guide button. You can choose another custom Favorite List, the All Chan list, which includes all the channels, or the All Sub list, which includes all subscribed channels. Unlock the receiver for the Program Guide to display adult channels. Do the Check Switch procedure (see the installation instructions for details).</td>
</tr>
</tbody>
</table>

### USING LOCKS

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>You set a lock (for example, a lock on programs by ratings), but the lock does not take effect.</td>
<td>You may not have locked the receiver.</td>
<td>You must lock the receiver to apply any lock that you have set.</td>
</tr>
<tr>
<td>You forgot the password, so that you are unable to unlock the receiver.</td>
<td>You may not have written down the password, to keep it in a safe place.</td>
<td>Call the Customer Service Center. You must provide the following information: (1) your name; (2) your address; (3) your telephone number; (4) the receiver serial identification number; and (5) your Personal Identification Number (PIN), if you use one.</td>
</tr>
</tbody>
</table>
Chapter 5
Reference

CHANGING CHANNELS

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>You enter a desired channel number. The channel changes, but the new channel is not exactly the channel you entered. You are scanning up or down through the channels, and the receiver is skipping channels that you know you have bought.</td>
<td>You may have made a mistake entering the channel number, or the channel number you entered may be invalid. If so, the channel displayed is the closest possible to the channel you entered. If you entered the number for a channel that you have not bought, the receiver will change to the channel and allow you to buy the channel or display a message. If a Favorite List other than All Chan is applied, the receiver will skip channels that are not on the applied list. If you have set up the Program Guide to hide adult channels and the receiver is locked, the receiver will skip such channels.</td>
<td>Carefully retry entering the channel number you want. Press the remote control Recall button to return to the previous channel number. Select All Chan as the active Favorite List. Unlock the receiver so that it does not skip adult channels. If you want to buy a channel, call the Customer Service Center.</td>
</tr>
</tbody>
</table>

USING FAVORITE LISTS

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>You press the remote Guide button while the Program Guide is displayed. You find that you can apply only the All Chan list or the All Sub list.</td>
<td>If you have not added channels to any custom Favorite List, you will be able to apply only the All Chan list or the All Sub list.</td>
<td>You must add channels to a custom Favorite List before you can apply it.</td>
</tr>
<tr>
<td>You try to change the All Chan list or the All Sub list. The receiver displays an ERROR message.</td>
<td>The receiver will not allow you to change the All Chan list or the All Sub list.</td>
<td>Choose another list to change. Note: You can change the All Sub list by changing what channels you buy.</td>
</tr>
<tr>
<td>You try to apply an empty Favorite List. The receiver displays an ERROR message.</td>
<td>The receiver will not allow you to apply an empty list.</td>
<td>Choose another list to apply, or add at least one channel to the empty list.</td>
</tr>
<tr>
<td>A Favorite List does not show channels that you know you have added to it.</td>
<td>If you have set up the Program Guide to hide adult channels and the receiver is locked, the Favorite List will not show such channels.</td>
<td>Unlock the receiver for the list to show adult channels.</td>
</tr>
</tbody>
</table>
## BUYING A PAY PER VIEW PROGRAM

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone orders a pay per view program without your permission.</td>
<td>You may have been away from the receiver, and someone else used it.</td>
<td>Lock the purchase of pay per view programs. <em>Remember that you are responsible for all pay per view purchases, whether or not you authorize such purchases.</em> If you lock pay per view purchases, then anyone who wants to order a pay per view program must enter the password.</td>
</tr>
<tr>
<td>You find that you are not able to order a pay per view program.</td>
<td>The receiver may not be connected to an active telephone line. The Smart Card credit limit may have been exceeded.</td>
<td>You <em>must</em> connect the receiver to an active telephone connection at all times. If you install two or more receivers, you <em>must</em> connect each receiver to an active telephone connection at all times. Review your pay per view purchases to check the Smart Card credit limit.</td>
</tr>
<tr>
<td>You find that you are not able to cancel a pay per view program.</td>
<td>You ordered a pay per view program, and then decided not to watch it.</td>
<td>You <em>cannot</em> cancel an order for a pay per view program, whether it was just ordered or ordered earlier.</td>
</tr>
<tr>
<td>Your setup includes more than one receiver. You order a pay per view program, but it does not appear via all of the receivers.</td>
<td>You ordered a pay per view program, and want it to be available via all the receivers in your setup.</td>
<td>If you want to watch a pay per view program on TVs connected to up to six receivers, you <em>must</em> order the program for each receiver but you only pay for the program once.</td>
</tr>
</tbody>
</table>

## USING THE TELEPHONE FOR VOICE/DATA/FAX

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>While you are making a telephone call, you hear “clicks.”</td>
<td>The receiver may have tried to call the Customer Service Center to send pay per view purchase information. When the receiver found that the telephone was busy, it automatically disconnected.</td>
<td>You do not have to do anything. You can always use your telephone line, because the receiver automatically hangs up if it finds the line is busy.</td>
</tr>
<tr>
<td>The receiver cannot connect to DISH Network.</td>
<td>Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.</td>
<td>Install a DSL filter between the receiver and the telephone wall jack.</td>
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<tr>
<td>You pick up the telephone to make a call, but you do not hear a dial tone.</td>
<td>The receiver was calling the Customer Service Center to send pay per view information. When the receiver found that the telephone was busy, it automatically disconnected.</td>
<td>Hang up, and then pick up the telephone again to get a dial tone.</td>
</tr>
<tr>
<td>Your computer or facsimile (FAX) machine tries to send a FAX or modem transmission, but fails.</td>
<td>The receiver was calling the Customer Service Center to send pay per view information. When the receiver found that the telephone was busy, it automatically disconnected.</td>
<td>Resend the FAX or modem transmission.</td>
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<tr>
<td>Your computer or FAX machine was receiving a FAX or modem transmission, but an error occurred.</td>
<td>The receiver may have tried to call the Customer Service Center to send pay per view purchase information during the FAX or modem call. When the receiver found that the telephone was busy, it automatically disconnected. This generated “clicks” that caused an error in the FAX or modem transmission.</td>
<td>Have the sender resend the FAX or modem transmission.</td>
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## Chapter 5

### Reference

### USING EVENT TIMERS

<table>
<thead>
<tr>
<th>What Is Happening</th>
<th>Possible Reason</th>
<th>What to Do</th>
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</thead>
<tbody>
<tr>
<td>You try to set up an event timer and the receiver displays a message noting that the program is locked.</td>
<td>You <strong>must</strong> enter the password before you can create an event timer for a locked program.</td>
<td>To be able to set up an event timer for the program, first enter the password.</td>
</tr>
<tr>
<td>You try to set up an event timer and the receiver displays a message noting that the program is a pay per view event.</td>
<td>You <strong>must</strong> order a pay per view event before you can create an event timer for it.</td>
<td>To be able to set up an event timer for the event, first order it.</td>
</tr>
<tr>
<td>You try to set up an event timer, but the receiver displays an <strong>Error</strong> message giving you the option to delete an event timer that was set up earlier.</td>
<td>You already have set up the maximum number of event timers.</td>
<td>To be able to set up a new event timer, delete one of the event timers you set up earlier.</td>
</tr>
<tr>
<td>You set up an event timer, but the receiver does not tune to the channel of the program, or does not record the program.</td>
<td>You may have set up a <strong>Reminder Event Timer</strong> but what you should have set up is an <strong>Auto-Tune Event Timer</strong>, or a <strong>VCR Event Timer</strong>.</td>
<td>Remember that a <strong>Reminder Event Timer</strong> just reminds you that the program is about to start. An <strong>Auto-Tune Event Timer</strong> reminds you and tunes the receiver to the channel of the program. A <strong>VCR Event Timer</strong> reminds you, tunes the receiver, and starts the VCR.</td>
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<tr>
<td>You set up an event timer for a program that is repeated (such as a regularly scheduled program), but the timer does not operate for a showing of the program.</td>
<td>You may have set up a timer with an incorrect frequency.</td>
<td>Remember that a <strong>Once</strong> event timer operates just one time. A <strong>Mon.-Fri.</strong> event timer operates Monday through Friday on the same channel at the same time. A <strong>Daily</strong> event timer does the same, Monday through Sunday. A <strong>Weekly</strong> event timer operates once a week on the same channel at the same time.</td>
</tr>
<tr>
<td>You set up an event timer, but the timer does not operate at all.</td>
<td>The program time may have changed so that the event timer overlapped another event timer. The program time may have changed by more than twenty-four hours.</td>
<td>If the receiver is ON and finds an event timer overlap, it will display the <strong>Event Timer Scheduling Conflict</strong> menu. You <strong>must</strong> edit or delete one of the overlapping event timers. No event timer will operate if the program time changes by more than twenty-four hours.</td>
</tr>
<tr>
<td>You set up a <strong>Once</strong> event timer, but the timer operates at a time different from what you expect.</td>
<td>The program time changed.</td>
<td>A <strong>Once</strong> event timer always operates at the actual time of the program.</td>
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<tr>
<td>You stop the operation of an event timer for one showing of a program that is repeated (such as a regularly scheduled program), but the timer operates for the next showing.</td>
<td>Stopping the event timer applies only to the current showing of the program.</td>
<td>To stop all operations of a repeated event timer, you <strong>must</strong> delete the event timer. <strong>Note:</strong> The receiver deletes a <strong>Once</strong> event timer when it operates.</td>
</tr>
<tr>
<td>You are testing a VCR code to see if the receiver controls a VCR. The VCR does not do the test.</td>
<td>The VCR may not be turned ON, there may not be a tape inserted, the tape may not be rewound, or the write-protect tab on the tape may have been removed. The code you are testing may not be valid for the VCR.</td>
<td>Make sure the VCR is turned ON, with a blank tape inserted on which you want to record, that the tape is rewound, and that the write-protect tab on the tape is intact. Try another VCR code from the <strong>VCR Codes</strong> table. The remote control user guide provides this table.</td>
</tr>
</tbody>
</table>
These tables contain the manufacturer codes for programming the remote to control other devices. Every attempt has been made to include all device codes. If your device is not listed or the codes do not work, the remote may not control your device.

## TV Codes

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## Chapter 5

### Reference

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Installation

These instructions guide you through the installation of your new DishPro satellite receiver in an existing system where your satellite dish(es) has already been installed and pointed for the strongest possible signal. If your dish antenna(s) is not already installed, you will need to follow the Installation Instructions found in Chapter 4.

There are two families of satellite receivers that are covered by these installation instructions.

- DishPro Receivers which have the DishPro logo shown below.

- Legacy receivers which do not have the DishPro logo.

If you are installing a DishPro receiver into one of the dish antenna systems listed below, go to step 1 under Procedure to start your installation:

- DishPro receiver into a dish antenna system with DishPro LNBFs and switches.
- DishPro receiver into a dish antenna system with Legacy LNBFs and switches.

If you are installing a Legacy receiver into a dish antenna system with Legacy LNBs and switches, complete the installation using the instructions which came with the Legacy receiver as well as instructions which came with the Legacy LNBs and switches.

**Important:** If you are trying to install a Legacy receiver (no DishPro logo) into an existing system with DishPro LNBFs and switches, you will need a DishPro Adapter. For more information on this, contact your DISH Network retailer or call 1-800-333-DISH (3474) for more information. They will give you the instructions for doing this installation with the DishPro Adapter.

DishPro
Appendix A

INSTALLATION INSTRUCTIONS

1. Connect an RG-6 coaxial cable (see notes below) from the Satellite In port on the receiver's back panel to an available port on your switch or LNBF in your existing system. See Chapter 4 wiring diagrams for appropriate receiver connections in your system. See Grounding the System in Chapter 4 for detailed cabling instructions.

**Note:** If you are installing a DishPro receiver into a system with DishPro LNBFs (and/or switches), you can have as much as 200 feet of cable between the LNBF and the receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say “Swept tested for 2150 MHz.” If you have any doubt about this, ask your Dish retailer, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.

**Note:** If you are installing the DishPro receiver into a system with Legacy LNBFs and/or switches (that do not have a DishPro logo), you can have as much as 100 feet of cable between the LNBF and the receiver. However, you must use only RG-6 cable - do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.

**Warning:** Tighten all the 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.

2. Connect a coaxial cable from the TV Set Out connection on your receiver to your television's RF tuner input. Check to see that the Channel 3/4 switch on the new receiver's back panel is set to the same channel 3 or 4 as your TV.

3. Plug in the receiver's power cord. Make sure both the receiver and TV are turned on.

4. You should see the **Point Dish/Signal** menu in the new receiver. If you do not, open the **Main Menu**, by pressing **Menu** followed by **6-1-1** on the remote.

5. Select **Check Switch**. An Attention screen will open. Select **Check** to run Check Switch.

6. When Check Switch is complete, you will see an **Installation Summary** screen. If the screen shows the correct switch and the message "Satellite reception verified" for all satellites in your system, go to step 7. If not:

   - If the Installation Summary screen does not detect all of the satellites your system should be receiving:
     
     a. Check and retighten (by hand) the cable connections between your receiver, LNBFs and switches in your system. Then press Retest to rerun Check Switch again. If this does not work, do step b below.
b. If your receiver is connected to a DishPro LNB or switch, but the DishPro switch/LNB is not indicated in the Installation Summary screen and satellite signals are missing, press OK to return to the Point Dish/Signal screen and follow the instructions below under Alternate Installation Procedure for DishPro Systems below.

7. Select **OK** to return to the **Point Dish/Signal** screen. Then select **Cancel** to exit the **Point Dish/Signal** screen.

8. An **Attention** screen will open. This screen asks if the mounting and positioning of your dish is complete with a "Locked" indication in the **Point Dish/Signal** screen. Since your system is already installed and your dish is pointed for the strongest possible signal strength, you can select **Yes**.

9. The receiver will begin taking a software upgrade. You will see the message shown below.

A progress bar at the bottom of the screen will show how the software upgrade is progressing. Once the software upgrade is complete, you will see a second message that the receiver's memory is now being programmed.

*This message may disappear, your screen may go blank for a few minutes, and the green light may continue to blink. This is normal and does not indicate a problem with the receiver.*

10. When the software upgrade is complete, press View and you should now be able to watch TV programming. To activate your programming on this newly installed receiver, call 1-800-333-DISH (3474).
ALTERNATE INSTALLATION PROCEDURES FOR DISHPRO SYSTEMS

The following instructions are to be used to connect the receiver directly to a DishPro LNBF which allows the receiver to take a software upgrade from the satellite. After taking the software upgrade, the installation can be completed. This procedure assumes that you have already completed steps 1 through 6 from the preceding instructions.

1. Connect an RG-6 coaxial cable from the Satellite In port on the receiver's back panel directly to any LNBF on a dish that has been installed and pointed for the strongest possible signal. Make sure there are no switches between the LNBF and the receiver (see “Grounding the System” on page 94 for detailed cabling instructions). You may want to use an in-line cable connector to bypass a switch. If your system is already connected this way, go to the next step.

2. You should see the Point Dish/Signal menu in the new receiver. If you do not, open the Main Menu, by pressing Menu followed by 6-1-1 on the remote.
   
   **Note:** Your receiver and TV should already be connected and powered on.

3. Look to make sure the number under Transponder is an odd number higher than 10 (for example, 11, 13, or 15) and you see a green signal strength bar. If you do not see an odd number higher than 10, move the highlight to the box under Transponder and use the Up or Down arrow on the remote to change the number until it is an odd number higher than 10 and you see a green signal strength bar. If you are unable to get a green signal strength bar:
   
   a. If you see the message Wrong Sat and the signal strength bar is red, move the check mark in the Point Dish/Signal menu to the satellite location indicated below the bar and the bar should turn green.
   
   b. If you do not see a signal strength bar on any odd transponder, temporarily shorten the cable between the LNBF and the receiver to 100 feet or less and then repeat step 3.

4. Once you have a green signal strength bar, press Cancel on the remote to exit the Point Dish/Signal screen.

5. An Attention screen will open. This screen asks if the mounting and positioning of your dish is complete with a Locked indication in the Point Dish/Signal screen. Since your system is already installed and your dish is pointed for the strongest possible signal strength, you can select Yes.
6. The receiver will begin taking a software upgrade. You will see the message shown below.

![Warning Image]

7. When the software upgrade is complete, you will need to go back to the Point Dish/Signal screen. To do this, open the Main Menu by pressing Menu and then 6-1-1 on the remote.

8. If you removed any switches in step #1, reconnect them now, and connect the Satellite In port on the receiver's back panel to any available receiver port on your switch. (See the wiring diagrams in Chapter 4 for more details.) If you shortened the cable between the LNBF and your receiver as requested in step 3.b, you can now reinstall cable that's up to 200 feet in length between the LNBF and the receiver.

9. Select Check Switch. An Attention screen will open. Select Check to run Check Switch.

10. A second Attention screen will open asking you to please wait while your switch installation is being checked.

11. When Check Switch is complete, you will see an Installation Summary screen. Make sure the screen shows the correct switch and the message “Satellite reception verified” for all satellites in your system.
LIMITED WARRANTY

This Limited Warranty is a legal document. Keep it in a safe place. Remember to retain your Bill of Sale for warranty service! Any items returned without a copy of the Proof of Purchase will be considered out of warranty.

WHAT THE WARRANTY COVERS

This warranty extends only to the original user of the equipment and is limited to the purchase price of each part. EchoStar Communications Corporation and its affiliated companies (“EchoStar”) warrant this system against defects in materials or workmanship as follows:

• **LABOR**: For a period of one (1) year from the original date of purchase, if EchoStar determines that the equipment is defective subject to the limitations of this warranty, it will be replaced at no charge for labor. EchoStar warrants any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.

• **Parts**: For a period of one (1) year from the original date of purchase, EchoStar will supply, at no charge, new or re-manufactured parts in exchange for parts determined to be defective subject to the limitations of this warranty. EchoStar warrants any such replacement parts against defects in materials or workmanship for the remaining part of the original warranty period. **Note**: “Parts” means items included in this package, which may include the satellite dish assembly, receiver, LNBF, remote control, or dish mounting hardware. It does not include other parts purchased separately.

WHAT THE WARRANTY DOES NOT COVER

• This warranty does not cover replacement of lost or damaged Smart Cards.

• This warranty does not cover installation of the system. If applicable, such installation will be warranted under a separate installation agreement.

• This warranty does not cover consumer instruction, physical setup or adjustment of any consumer electronic devices, remote control batteries, signal reception problems, loss of use of the system, or unused programming charges due to system malfunction.

• This warranty does not cover cosmetic damage, damage due to lightning, electrical or telephone line surges, fire, flood, or other acts of Nature, accident, misuse, abuse, repair or alteration by other than authorized factory service, use of accessories not recommended by the receiver manufacturer, negligence, commercial or institutional use, or improper or neglected maintenance.

• This warranty does not cover equipment sold AS IS or WITH ALL FAULTS, shipping and handling, removal or reinstallation, shipping damage if the equipment was not packed and shipped in the manner prescribed, nor equipment purchased, serviced, or operated outside the continental United States of America.
LEGAL LIMITATIONS

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY. ECHOSTAR SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ON THIS SYSTEM, NOR FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF, OR INABILITY TO USE, THIS SYSTEM. UNDER NO CIRCUMSTANCES SHALL ECHOSTAR'S LIABILITY, IF ANY, EXCEED THE PURCHASE PRICE PAID FOR THIS SYSTEM. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS SYSTEM IS LIMITED IN DURATION TO THE PERIOD OF THIS WARRANTY. ECHOSTAR RESERVES THE RIGHT TO REFUSE TO HONOR THIS WARRANTY IF ECHOSTAR DETERMINES ANY OF THE ABOVE EXCEPTIONS TO HAVE CAUSED THIS SYSTEM NOT TO HAVE PERFORMED PROPERLY. THIS WARRANTY SHALL BE VOID IF ANY FACTORY-APPLIED IDENTIFICATION MARK, INCLUDING BUT NOT LIMITED TO SERIAL OR CONDITIONAL ACCESS NUMBERS, HAS BEEN ALTERED OR REMOVED. THIS WARRANTY SHALL ALSO BE VOID IF THE RECEIVER HAS BEEN OPENED BY AN UNAUTHORIZED PERSON.

IF YOU NEED ASSISTANCE

1. Call the Customer Service Center at 1-800-333-3474. Have the date of purchase and either your customer account number, the receiver conditional access number, or the receiver model number ready. Display the Important System Information menu to find these numbers.
2. A Customer Service Representative will assist you.
3. If the Representative determines you should return any equipment, you will be directed to call a Return Authorization representative. Before shipping any equipment, you must talk to a Return Authorization representative and must obtain a Return Authorization (RA) number.
4. You will be given the appropriate address for which to return your equipment. Whether under warranty or not, you will be responsible for the cost of shipping back the defective equipment. For faster service, see the Advance Exchange Program below.
5. Returned equipment must be packaged properly, using either the original shipping materials or the packaging in which the replacement equipment is shipped. Include a copy of the Bill of Sale. Any items returned without a copy of the Proof of Purchase will be considered out of warranty. Follow the instructions given to you by the Customer Service Representative.
6. Write the RA number in large, clearly visible characters on the outside of the shipping box that you use to return the equipment. To avoid confusion and misunderstandings, shipments without an RA number clearly visible on the outside of the box will be returned to you at your expense.
7. If you return the receiver, you must return the Smart Card with the receiver. If you do not return the Smart Card with the receiver, a fee will be assessed against your account.
ADVANCE EXCHANGE PROGRAM

The Advance Exchange Program allows you to have replacement equipment shipped immediately to you (depending upon where you live, it could take three to five business days). Along with replacement equipment, you will receive a pre-paid shipping label and instructions on how to return the defective equipment.

The shipping charge, for receiving replacement equipment and returning the defective equipment, is a one-time fee based on EchoStar’s competitive bulk shipping rates (additional charges may apply outside of the continental US). This fee will be charged to your billing account or your valid credit card.

If you do not ship the defective equipment to EchoStar within ten days after receiving the replacement, your billing account or credit card will be charged the market price of the replacement. If you return the defective equipment after ten days, you will receive a full refund less an administrative fee.

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, billing account or credit card will be charged the market price of the replacement.

POST RECEIPT EXCHANGE PROGRAM

You may choose to ship the equipment to us at your cost. To provide faster service, upon receipt of your equipment you will be shipped a replacement. Your original equipment will not be available for return.

The equipment you return will be checked to verify whether it is covered under this warranty. If the defective equipment is covered under this warranty, it will be replaced and shipped back to you at no additional cost (additional charges may apply outside of the continental US).

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, your billing account or credit card will be charged the market price of the replacement.
RESIDENTIAL CUSTOMER AGREEMENT

Effective as of September 1, 2001 until replaced.

THIS DOCUMENT DESCRIBES THE TERMS AND CONDITIONS UNDER WHICH DISH NETWORK WILL PROVIDE ITS SERVICE TO YOU. IF YOU DO NOT ACCEPT THESE TERMS AND CONDITIONS, PLEASE NOTIFY US IMMEDIATELY AND WE WILL CANCEL YOUR SERVICE. IF YOU ARE A NEW DISH NETWORK CUSTOMER, YOUR ACTIVATION OF A DISH NETWORK ACCOUNT AND RECEIPT OF DISH NETWORK SERVICES SHALL CONSTITUTE YOUR ACCEPTANCE OF THIS AGREEMENT AND ITS TERMS AND CONDITIONS WILL BE LEGALLY BINDING UPON YOU.

IF YOU ARE AN EXISTING DISH NETWORK CUSTOMER, YOUR CONTINUED RECEIPT OF DISH NETWORK SERVICES FOLLOWING RECEIPT OR PUBLICATION BY DISH NETWORK ON ITS WEB SITE OF THIS AGREEMENT SHALL CONSTITUTE YOUR ACCEPTANCE OF ITS TERMS AND CONDITIONS, AND, ACCORDINGLY, THEY WILL BE LEGALLY BINDING ON YOU.

Thank you for choosing DISH Network for your television service provider. DISH Network is happy to answer any questions you may have and to provide you with technical and other customer support through the following toll-free number and email address:

1-800-333-DISH
feedback@echostar.com

or you may write to:

DISH Network
Customer Service Center
P.O. Box 33577
Northglenn, CO 80233

and, for general knowledge, try our website at www.dishnetwork.com.

“Dish Network” is a trademark of EchoStar Satellite Corporation.

1. THE DISH NETWORK SERVICE.

A. Services Defined. DISH Network offers a wide variety of video and audio programming and other services and we are constantly striving to add new services to our lineup. For purposes of this Agreement the term “Services” shall mean the programming available on DISH Network (whether subscription based or pay per view based) and any other services that we may provide to consumers either now or in the future. For purposes of this Agreement the terms “You” or “Your” refer to you, the DISH Network subscriber.

B. Programming Changes. Except as otherwise set forth in this Agreement, you may change your programming selection at any time by notifying us. A fee may apply to such changes (Change of Service Fee). In addition, you may be charged a fee (Service Access Fee) if you fail to subscribe to one of DISH Network’s basic programming packages which include America’s Top 50, America’s Top 100/CD, America’s Top 150, DISH Latino or DISH Latino Dos.
C. Programming Availability. Certain Services transmitted by us, including but not limited to some subscription Services, sporting events and broadcast network Services, may be blacked out in your area of reception. If you circumvent or attempt to circumvent any of these blackouts, you may be subject to legal action. You must be at least 18 years of age, or the applicable age of majority where you reside, in order to receive adult-oriented programming services.

D. Ordering Pay Per View. You may order DISH Network pay-per-view Services by using your on-screen Program Guide and remote control unit to select the movies and other events we offer. To order DISH Network pay-per-view Services, your DISH Network DBS digital receiver must be connected to a telephone outlet. You may also order DISH Network special events and pay-per-view Services over the telephone by calling the Customer Service Center or by using our automated system through the following toll free numbers:

1-877-778-MOVI (6684) for ordering movies
1-877-363-EVNT (3868) for ordering events
1-877-778-ADLT (2358) for ordering adult movies

A small fee will apply for use of the automated system (Pay-Per-View Automated Fee) or the Customer Service Center (Pay-Per-View Fee).

E. Private Viewing. DISH Network provides Services to you for your private home viewing, use and enjoyment. You agree that the Services provided will not be viewed outside of your private residence. You are permitted to exhibit the Services solely in your private residence and not in any other areas. The Services may not be rebroadcast, transmitted, recorded or performed, nor may admission be charged for listening to or viewing any Services provided by us. If we later determine that you utilized your DISH Network Equipment (including any additional DISH Network receivers) or sold, leased or otherwise gave possession of the same to a third party who you knew or reasonably should have known intended to use it to permit the viewing of the Services in a commercial establishment or any other area open to the public, we may terminate the Services and in addition to all other applicable fees, you agree to pay us the difference between the price actually paid for the Services and the full commercial rate for such Services, regardless of whether we have or had the commercial rights to such Services. The payment of that amount and/or the termination of Services shall not prejudice our ability to exercise any other rights and remedies we may have under this Agreement, at law, in equity, or otherwise.

F. Additional Receivers. To independently tune additional televisions within your home, a separate DISH Network receiver is required for each television. DISH Network will allow you to place up to five additional receivers on your account. Each additional receiver would be authorized to receive the same Services as your initial receiver. DISH Network will charge you a reduced monthly fee (Additional Receiver Authorization Fee) for each additional receiver added to your account. This option is only available if your initial DISH Network receiver and all additional receiver(s) are located at the same residence and are continuously connected to the same telephone line. If you desire to receive Services at two different locations, you must open a separate account for each location. You agree that you will not directly or indirectly use a single account for the purpose of authorizing Services for multiple DISH Network receivers that are not all located in the same residence and connected to the same phone line. If we later determine that you did, we may terminate your Services and, in addition to all other applicable fees, you agree to pay us the difference between the amounts actually received by us and the full retail price for the Services authorized for each DISH Network DBS receiver on the account, whether owned by you or not. The payment of that amount and/or the termination of Services shall not prejudice our ability to exercise any other rights and remedies we may have under this Agreement, at law, in equity, or otherwise.
Appendix B

G. Changes in Services offered. DISH Network reserves the right to change the Services that we offer, and our prices or fees related to such Services at any time. If the change affects you, we will provide you notice of the change and its effective date. The notice may be provided on your billing statement or by other communication permitted under Section 9B. In the event of a change in the contents of any programming, programming packages or other Services, you understand and agree that we have no obligation to replace or supplement the programming, programming packages or other Services previously offered that have been deleted, rearranged or otherwise changed. You further understand and agree you will not be entitled to any refund because of a change in the contents of any programming, programming packages, or other Services previously offered.

H. Multi-Month Subscriptions. For multi-month subscriptions, you may downgrade the Services only at the time of renewal. You may not downgrade the Services during the term of the multi-month subscription.

2. BILLING POLICIES AND PAYMENTS FOR SERVICES.

A. You agree to pay all amounts billed for Services and to pay all taxes, fees and other charges, if any, which are now or may in the future be assessed on the Services you receive from us. Unless you prepay for a multi-month subscription to Services, we will bill you each month, in advance, for Services ordered by you or anyone who uses your DISH Network Equipment, whether with or without your permission, until you cancel the Services. The bills you receive will show the total amount due, the payment due date, payments, credits, purchases and other charges to your account.

B. You agree to pay us in full monthly by the payment due date for the Services and for any other charges due us, including any fees set forth in this Section 2. Payment of your bill after the due date will result in you paying us a Late Payment Fee. Other fees and charges may also be assessed. If partial payments are made, they will be applied first to the oldest outstanding bill. If you send checks or money orders marked “payment in full,” we can accept them without losing any of our rights to collect any other amounts owed by you, notwithstanding your characterization of the payment. DISH Network does not extend credit to our customers, and the Late Payment Fee is not interest, a credit service charge or a finance charge. You understand and agree that in the case of late payment or nonpayment for any Services ordered by you or for any of the charges stated below, we may report such late payment or nonpayment to credit reporting agencies. If you do not pay your bill by the due date, we have the right to disconnect your Services at any time thereafter, in our sole discretion. DISH Network may require you to pay all past due charges, a Reconnect Fee, a deposit equal to a minimum of one month's advance charges and all outstanding balances accrued through the date of deactivation, before we reconnect your Services. Deposits will not be held segregated from other funds and shall not earn or accrue interest.

C. If you at any time fail, neglect, or refuse to make timely payments hereunder, or if a petition in bankruptcy shall be filed on your behalf or against you, or if you take advantage of any insolvency law or become insolvent or make an assignment for the benefit of creditors, or if a receiver, liquidator, or trustee is appointed for your property or affairs, we shall be wholly relieved from our obligations hereunder.
D. If you paid for an annual or other multi-month subscription to any Services and your account is past due for any amounts owed to us, at our option we may suspend any or all Service until payment is received, and/or convert your annual or other multi-month subscription to a monthly subscription. If we convert your multi-month subscription to a monthly subscription, we will first apply the amount you paid for your multi-month subscription to any past due amounts and then any remaining amounts to future obligations. If we elect to offset the amount paid for the remaining portion of a multi-month subscription against amounts past due, you agree to pay, in addition to all other applicable fees, the Offset Fee set forth below for each month and partial month that the multi-month subscription was previously received.

E. If we use a collection agency or attorney to collect money you owe us or to assert any other right which we may have against you, you agree to pay the reasonable costs of collection or other action. These costs might include, but are not limited to, the costs of a collection agency, reasonable attorney’s fees and court costs. If there are billing errors or other requests for credit, you can contact our Customer Service Center by telephone or in writing. You must contact us within sixty (60) days of the time you receive the billing statement for which you are seeking corrections. Failure to timely notify us of a dispute shall constitute acceptance of the bill. Undisputed portions of the billing statement must be paid before the next billing statement is issued to avoid an administrative fee for late payment. All payments for Services must be made directly by you to us. DISH Network shall have no obligation to provide Services for which payment is made by you to a third party.

F. In addition to the amounts due for Services, you agree to pay the fees referenced below (“Fees”) when applicable. DISH Network reserves the right to increase these Fees or add additional Fees in the future, in our sole discretion.

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Card Replacement Fee</td>
<td>$50.00</td>
</tr>
<tr>
<td>Additional Receiver Authorization Fee (monthly, per receiver)</td>
<td>$4.99</td>
</tr>
<tr>
<td>Late Payment Fee</td>
<td>$5.00</td>
</tr>
<tr>
<td>Change of Service Fee</td>
<td>$5.00</td>
</tr>
<tr>
<td>Duplicate Billing Statement Fee</td>
<td>$2.00</td>
</tr>
<tr>
<td>Overnight Delivery Fee</td>
<td>$18.00</td>
</tr>
<tr>
<td>Restart Fee</td>
<td>$25.00</td>
</tr>
<tr>
<td>Returned Payment Fee</td>
<td>$25.00</td>
</tr>
<tr>
<td>Service Access Fee (monthly)</td>
<td>$5.00</td>
</tr>
<tr>
<td>Offset Fee</td>
<td>$2.00</td>
</tr>
<tr>
<td>Ledger Request Fee</td>
<td>$5.00</td>
</tr>
<tr>
<td>Pay-Per-View Automated Fee</td>
<td>$1.00</td>
</tr>
<tr>
<td>Pay-Per-View Fee</td>
<td>$5.00</td>
</tr>
</tbody>
</table>

3. CANCELLATION OF SERVICE.

A. Your Service will continue until cancelled as provided for herein. Your subscription will be automatically renewed unless you contact us to cancel as provided for in the next paragraph.

B. You have the right to cancel your Service for any reason at any time by notifying us via telephone or in writing at the phone number or address set forth on page 1, above. Please be aware that certain promotional offers have a minimum subscription commitment (usually 12 months) and if you cancel your service prior to the expiration of that commitment, certain early termination fees may apply.
C. DISH Network has the right to terminate your Services at any time without providing notice to you if: (i) you fail to pay your bill when it is due; (ii) we receive confirmation that you have received the Services, or any part of the Services without paying for them; or (iii) you otherwise violate the terms of this Agreement.

D. If your Service is canceled for any reason, you are still responsible for payment of all outstanding balances accrued, including any applicable Fees.

E. You understand that charges for Services, once charged to your account, are nonrefundable. For monthly subscriptions, the cancellation will be effective at the end of the period covered by the last monthly bill. No refunds or credits will be provided in connection with the cancellation of monthly subscriptions. For annual or other multi-month subscriptions, the cancellation will be effective as of the date the multi-month subscription expires. Because you are receiving a discounted price in exchange for your agreement to pay for your services on an annual or other multi-month basis, in the event you cancel the Services prior to expiration of your multi-month subscription, you understand and agree that you are not entitled to any refund or credit for the unused portions of the multi-month subscription and that we have the right to retain any prepaid monies as liquidated damages.

4. **EQUIPMENT.**

A. In order to receive the Services it will be necessary for you to purchase or lease certain reception equipment consisting primarily of a DISH Network compatible satellite receiver, a satellite antenna, LNBF unit and remote control ("Equipment"). You will also be provided with a conditional access card ("Smart Card") that is inserted into your satellite receiver. The Smart Card remains the property of EchoStar Communications Corporation, the corporate parent of DISH Network and any tampering or other unauthorized modification to the Smart Card is strictly prohibited and may result in, and subject you to, legal action. You agree to return the Smart Card to us upon request.

B. Smart Cards are nontransferable. Your Smart Card will only work in the DISH Network receiver to which it was assigned by DISH Network. If you report to the Customer Service Center that your Smart Card was lost, damaged, defective or stolen we will replace it, as long as there is no evidence of unauthorized tampering or modification. A replacement fee will apply. In addition, in order to minimize downtime for your Equipment, DISH Network will, upon your request, deliver a replacement Smart Card to you via overnight delivery. Our Overnight Delivery Fee will apply.

C. DISH Network reserves the right to alter software in your DISH Network receiver, and provide content to PVR products, through periodic downloads. DISH Network will use commercially reasonable efforts to schedule these downloads in a manner that result in the least amount of interference with or interruption to your Service.

D. Your DISH Network receiver contains certain components and software which are proprietary to DISH Network. You agree that you will not try to reverse-engineer, decompile or disassemble any software or hardware contained within your receiver or our Smart Card. Such actions are strictly prohibited and may result in the termination of your Services and/or legal action.

E. For proper operation of your Equipment, DISH Network requires that you connect each DISH Network receiver on your account to a telephone line. For accounts containing multiple receivers, each receiver must be connected to the same telephone line.

F. If your DISH Network Equipment is stolen or otherwise removed from your premises without your authorization, you must notify our Customer Service Center immediately, but in any event not more than three (3) business days after such removal to avoid liability for payment for unauthorized use of the DISH Network Equipment. You will not be liable for unauthorized use after we have received your timely notification.
5. LEASED EQUIPMENT.

A. If you decide to lease your Equipment from DISH Network, such Equipment shall at all times remain the sole and exclusive property of DISH Network and we will have the right, at our discretion, to replace it with new or reconditioned equipment and to remove the equipment upon termination of Services. None of the equipment shall be deemed fixtures or part of your realty. Our ownership of the equipment may be displayed by notice contained on the equipment. You shall have no right to pledge, sell, mortgage, give away or remove, relocate, alter or tamper with the equipment (or any notice of our ownership thereon) at any time. Any reinstallation, return of or change in location of the equipment shall be performed by us at the service rates in effect at the time of service. You shall not attach any electrical or other devices to or otherwise alter the equipment without our prior written consent. DISH Network shall have the right to make such filings as are necessary to evidence our ownership rights in the equipment, and you agree to execute any and all documents as are necessary for us to make such filings. Upon termination of Services, you must notify our Customer Service Center to schedule the return the Equipment.

B. You shall notify us promptly of any defect in, damage to, or accident involving the equipment. All maintenance and repair of the equipment shall be performed by us or our designees. DISH Network may charge you for any repairs that are necessitated by any damage to, or misuse of, the Equipment.

6. TRANSFER OF ACCOUNT, SERVICES OR EQUIPMENT.

DISH Network may sell, assign or transfer your account to a third party without notice to you. You may not assign or transfer your Services without our written consent which will not be unreasonably withheld. We may, however, refuse to allow you to assign or transfer your Services if you lease your Equipment or if your account has an outstanding balance.

7. LIMITATION OF OUR LIABILITY.

A. WE WILL NOT BE LIABLE FOR ANY INTERRUPTIONS IN SERVICE OR LIABLE FOR ANY DELAY OR FAILURE TO PERFORM, IF SUCH DELAY OR NONPERFORMANCE ARISES IN CONNECTION WITH THE TERMINATION OF ALL OR A PORTION OF THE SERVICES, THE RELOCATION OF ALL OR A PORTION OF THE SERVICES TO DIFFERENT SATELLITE(S), A CHANGE IN THE FEATURES AVAILABLE WITH YOUR DISH NETWORK DBS EQUIPMENT OR ANY ACTS OF GOD, FIRES, EARTHQUAKES, FLOODS, POWER OR TECHNICAL FAILURE, ACTS OF ANY GOVERNMENTAL BODY OR ANY OTHER CAUSE BEYOND OUR CONTROL. WE WILL NOT BE LIABLE FOR ANY DAMAGE RESULTING FROM LOSS OF RECORDED MATERIAL OR THE PREVENTION OF RECORDING DUE TO ANY FAULT, FAILURE, DEFICIENCY OR DEFECT IN SERVICES OR EQUIPMENT. WE MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, REGARDING THE DISH NETWORK DBS EQUIPMENT OR ANY SERVICES FURNISHED TO YOU. ALL SUCH WARRANTIES ARE EXPRESSLY EXCLUDED. IN NO EVENT SHALL WE HAVE ANY LIABILITY FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RELATING TO THE DBS EQUIPMENT OR RESULTING FROM OUR FURNISHING OR FAILURE TO FURNISH ANY SERVICES OR EQUIPMENT TO YOU, OR FROM ANY FAULT, FAILURE, DEFICIENCY OR DEFECT IN SERVICES OR EQUIPMENT FURNISHED TO YOU.
Appendix B

B. It is your responsibility to impose any restrictions on viewing by you, other members of your household, or guests, and we shall have no liability to anyone due to or based on the content of any of the Services furnished to you.

8. WARNING AGAINST PIRACY.

It is a violation of several U.S. federal and state laws to receive any Services, or any portion of such Services, without paying for them. The penalties for violating such laws can range from imprisonment to civil damage awards of up to $110,000 per violation.

9. MISCELLANEOUS.

A. Physical Address/Change of Address. When setting up your DISH Network account, you agree to provide us with the physical street address where the Equipment will be located. A post office box does not constitute a physical address and is not sufficient to meet this requirement. You agree to give us prompt notice of your change of name, mailing address, physical address where the Equipment is located or telephone number. You may do this by notifying our Customer Service Center by telephone or in writing.

B. Notice. If we send you notice, it will be considered given when deposited in the U.S. Mail, addressed to you at your billing address or hand-delivered to you. Our notice to you will also be effective if provided on your billing statement or by telephone. If you give notice to us, it will be deemed given when received by us at the address listed on the first page of this Agreement.

C. Applicable Law. This Agreement, including all matters relating to its validity, construction, performance and enforcement, shall be governed by applicable federal law, the rules and regulations of the Federal Communications Commission, and the laws and regulations of the state and local area where Service is provided. These terms and conditions are subject to amendment, modification or termination if required by such regulations or laws. If any provision in this Agreement is declared to be illegal or in conflict with any law or regulation, that provision may be deleted or modified, without affecting the validity of the other provisions.

D. Other. This document contains the entire agreement between DISH Network and you, the customer, and no salesperson, installer, customer service representative, authorized retailer, or other similarly situated individual is authorized to change the terms set forth herein. DISH Network may, however, change the terms and conditions of this Agreement in the future and will notify you if that occurs. The terms of this Agreement, which either are expressly stated to survive or by their nature would logically be expected to survive termination, shall continue thereafter until fully performed.
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).

This product may incorporate copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of such 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

The following text is extracted from Federal Communications Commission (FCC) regulations, as of the publication date of this Guide. Contact the FCC (see 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. See the inside of the back cover of this guide for the REN of this equipment.

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). The receiver does not affect the sum of RENs. 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 Customer Service 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.

**WARNING:** Do not attempt to open the receiver, as this will void the warranty. 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 warranty.

This equipment is hearing-aid compatible.

It is recommended that the customer install an AC surge arrester 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**

The receiver complies with the limits for a Class B digital device, as specified in Part 15 of the FCC Rules. This compliance helps ensure against radio interference with other equipment in a typical residential location. Except for the telephone cable, you are required to use shielded cables and cords, such as coaxial and communication cables, to maintain FCC compliance.

The receiver does use radio frequencies during operation. If you do not install or use the receiver properly, radio energy may be generated that can interfere with radio communications. Also, it is possible that radio interference can occur even in a proper installation. The typical symptom of radio interference is distortion of television or radio reception. You can determine if the receiver is the cause by confirming that the interference stops if you unplug the receiver from the power outlet, and the interference returns when you plug the receiver back into the outlet.

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 Troubleshooting on page 99 for a detailed description of recommended customer actions.

If none of the remedies on the previous page stops the radio interference, you should contact a licensed radio/television technician, your satellite dealer, or call the Customer Service Center at 1-800-333-3474, for assistance.

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

FCC Consumer Facts Sheet: Interference
FCC Communications Commission
Consumer and Governmental Affairs Bureau
445 12th St.
Washington D.C. 20554
1-888-225-5322
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Write the following information in the spaces provided below. You may need to provide this information if you call the Service Center. To get the Conditional Access Numbers, display the Important System Information menu (see Ordering Your Program Packages on page 2).

| Purchase Location Name:                      |
| Purchase Location Telephone Number:          |
| Receiver Serial Number:                      |
| Receiver Conditional Access Number           |
| Smart Card Conditional Access Number:        |
| FCC Ringer Equivalence Number (REN): 0.0B    |

<table>
<thead>
<tr>
<th>Codes Programmed into Remote Control</th>
</tr>
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<tbody>
<tr>
<td>Remote Address (SAT Mode)</td>
</tr>
<tr>
<td>Television Code (TV Mode)</td>
</tr>
<tr>
<td>VCR Code (VCR Mode)</td>
</tr>
<tr>
<td>Auxiliary Code (AUX Mode)</td>
</tr>
</tbody>
</table>

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