

# Chapter 2

## Receiver Description and Installation

### The Receiver Front Panel



#### Smart Card Door

Behind this door is a slot for a future smart card. No smart card is included with this receiver.

#### Up and Down Arrow Buttons

The UP and DOWN buttons change the channel on the receiver.

#### IR Sensor and IR Blaster

The IR SENSOR receives IR signals from the remote control. The IR BLASTER transmits IR signals to control a VCR in order to perform automated recordings.

#### Power Button and Light

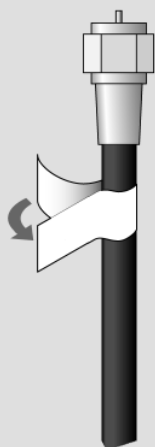
The GREEN LIGHT on the front panel lights up when you press the receiver's POWER button ON and goes out when you press the POWER button OFF.

### The Receiver Back Panel Connections



Tighten the connections by hand *only*. If you use a wrench you might over-tighten the connections and cause damage that *would not* be covered by the *Limited Warranty*.

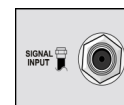
The back panel of the receiver provides the connections that you use to connect the receiver to other electronic devices. It also provides the receiver power cord and telephone jack. Depending on the setup that you have, you may only use some of these connections.



**Tip:** Using cable labels makes it easy to tell which cables connect to the receiver ports.

#### Signal Input

The television signal enters your receiver through this connection. Connect an RG-6 coaxial cable from your wall outlet to the **SIGNAL INPUT** connection. The connector is color coded black. Remember to tighten by hand only. Wrap the black label, located inside the front cover, around the end of the cable to identify it.



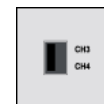
#### TV Set

Use the **TV SET** connector as the primary means of connecting your receiver to your TV. Use either an RG-6 or an RG-59 coaxial cable. The connector is color coded white. Remember to tighten by hand only. Wrap the white label, located inside the front cover, around the end of the cable to identify it.



#### Channel 3/4 Switch

If you use the **TV SET** connection as described above, set the **CHANNEL 3/4 SWITCH** to the channel for the signal output. Select a channel that is not being used by a cable or local television channel.



#### S-Video

The **S-VIDEO** connection provides high quality standard definition video output. If you use this output for video, you must connect the audio with the two **RCA AUDIO OUTPUTS** (color coded Red and White).



#### Phono (RCA) Audio/Video Outputs

These color coded **RCA A/V OUTPUT** connectors provide good quality standard definition video and audio. Use a Phono RCA-type cable to connect these outputs to your TV or other device.



## 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.

## Remote Control

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The remote control gives you easy access to the features of your satellite receiver.

Basic remote control setup is explained here, using the SAT button on the remote.

Complete instructions on how to use the remote, as well as the rest of the system, are in *Chapter 3*.



**Tip:** If you have the receiver connected to a DSL (Digital Subscriber Line) phone line and it cannot dial out, you may have to install a DSL filter between the receiver and the telephone jack on the wall.

#### Remote Control Batteries

The remote control comes with AAA batteries, which need to be installed when you first receive your system. 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 than carbon zinc.

1. Press down on the top of the battery cover and push in the direction of the arrow. The cover will snap 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.
4. 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.



#### On Screen Low Remote Battery Warning

When you see a low battery warning message below the **Program Banner**, the batteries in your remote control are weak and need to be replaced.



## Remote Control Settings

### Change the Address

The remote control and receiver can operate on any one of 16 addresses; however, they must both be on the same address for the remote to control the receiver. This section explains how to change the address in both devices.

**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.

1. Press **SYS INFO** button on your remote control. The **System Information** screen displays and shows the **Remote Address**.

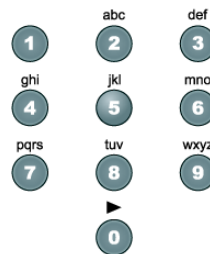


Write down this address: \_\_\_\_\_

2. Press and hold the **SAT** button on your remote control for about three seconds, until all of the mode buttons light up, and then let go of the **SAT** button.
3. Use the **NUMBER PAD** buttons to enter any number between 1 and 16, but not the one you wrote in step 1.



Write down the number you entered: \_\_\_\_\_



4. Press the **POUND (#)** button. If you entered the address correctly, the **SAT** mode will flash three times.



5. Press the **RECORD** button.

**Note:** Make sure the **Remote Address** you see on the **System Information** screen is the same as the one you entered in step 3. If it isn't, the remote cannot control the receiver.



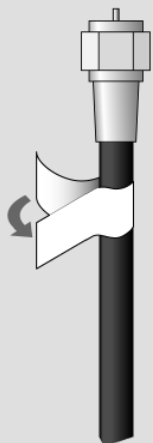
6. Press the **SELECT** button to close the **System Information** screen.



### Checking the Remote Control Address

1. Press and hold the **SAT** mode button for three seconds, until all of the mode buttons light up, and then let go of the **SAT** button.
2. Press the **POUND (#)** button twice. The **SAT** mode button will flash the same number of times as the address number (for example: three flashes means address 3).



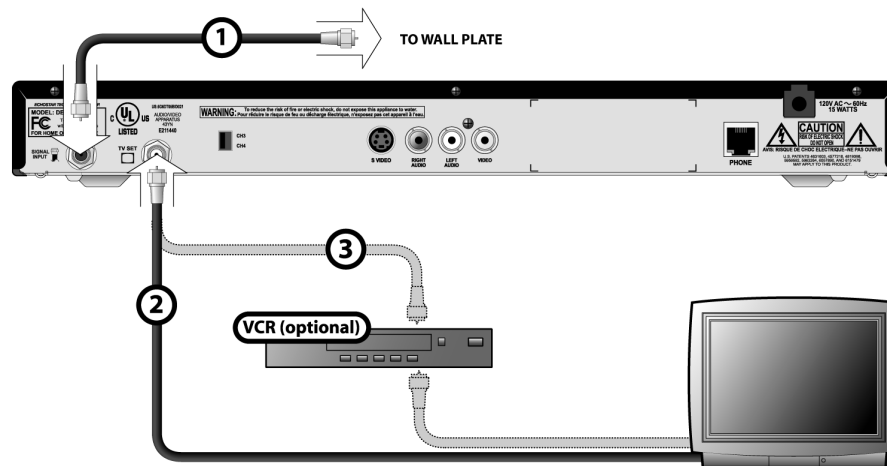


**Tip:** Using cable labels makes it easy to tell which cables connect to the receiver ports. Inside the front cover of this guide are stickers that are color coded the same way as the coaxial connections.

## Connecting Your Receiver

### Connection Diagram Example

The diagram below is an example of how to connect your receiver, TV, and VCR.



### Typical Connection Procedure



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.

①

**SIGNAL INPUT** - Connect a coaxial cable between the wallplate and **SIGNAL INPUT** on the back of the receiver. Peel off the black sticker and affix it to the cable close to where it connect to the **SIGNAL INPUT** connection on the back of the receiver.

②

**TV SET** to a TV - Connect a coaxial cable between the **TV SET** output on the receiver and the TV's tuner input. Be sure to tune the TV to the channel you use to watch satellite TV (either Channel 3 or 4 as indicated on the CH 3/4 switch). Peel off the white sticker and affix it to the cable close to where it connect to the **TV SET** connection on the back of the receiver.

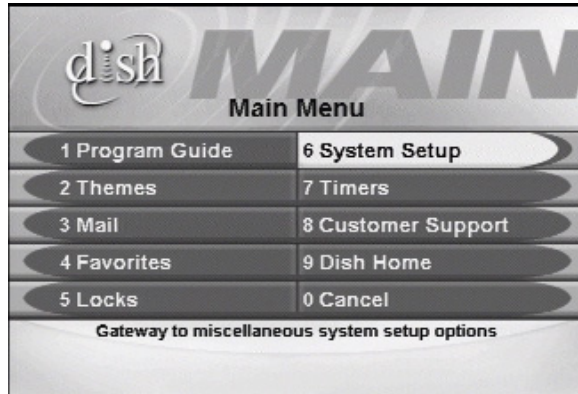
③

**TV SET** to a VCR (Optional) - Connect a coaxial cable between the **TV SET** output on the receiver and the VCR's tuner input. Connect another cable between the VCR's modulator output and the TV's tuner input. Be sure to set the CH 3/4 switch on the receiver and on the VCR to the same channel (either 3 or 4) you use to watch satellite TV. Tune your TV and VCR to the same channel you selected on the CH 3/4 switch. Peel off the white sticker and affix it to the cable close to where it connect to the **TV SET** connection on the back of the receiver.

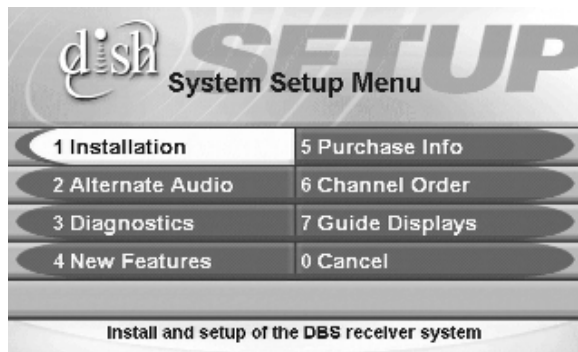
## Performing the QAM Frequency Scan

**Note:** When you turn your receiver on it may display the **QAM Frequency Scan and Signal Strength** screen automatically. If it does, then skip down to Step 5.

1. Press the MENU button to open the **Main Menu**.

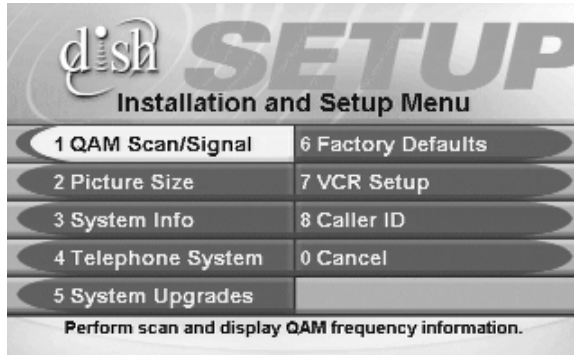


2. Select the **System Setup** option on the **Main Menu**. The **System Setup Menu** screen is displayed.

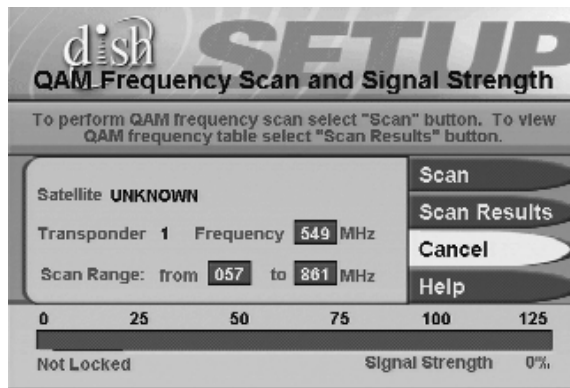


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3. Select the **Installation** option on the **System Setup Menu**. The **Installation and Setup Menu** screen is displayed. 1



4. Select the **QAM Scan/Signal** option. The **QAM Frequency Scan and Signal Strength** screen is displayed. 1



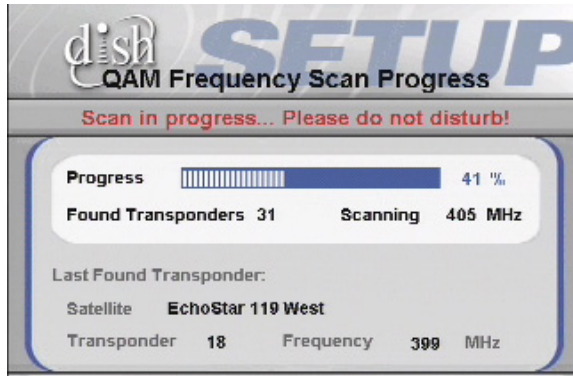


5. Select the **Scan** option.

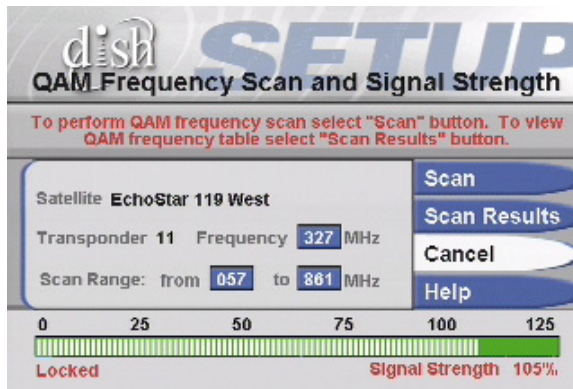
While scanning, the receiver displays the **QAM Frequency Scan Progress** screen. The scan can take a few minutes.



**Note:** The receiver creates a table of available satellite transponders with the corresponding QAM frequencies. This table is *required* for correct operations.

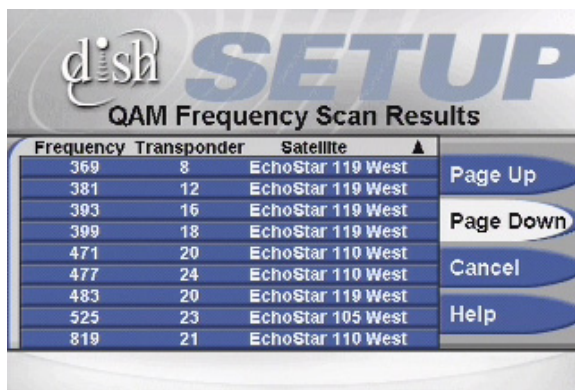


The receiver will again display the **QAM Frequency Scan and Signal Strength** screen.



Observe that the signal strength bar is now green and displays the word **Locked**.

6. To see the completed scan, select the **Scan Results** button. The receiver displays the **QAM Frequency Scan Results** screen.



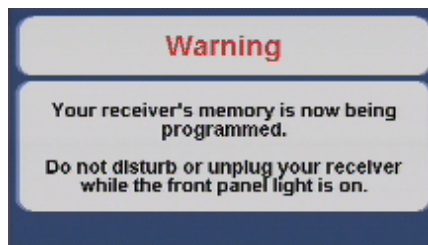
Frequency	Transponder	Satellite	
369	8	EchoStar 119 West	Page Up
381	12	EchoStar 119 West	Page Down
393	16	EchoStar 119 West	Cancel
399	18	EchoStar 119 West	Help
471	20	EchoStar 110 West	
477	24	EchoStar 110 West	
483	20	EchoStar 119 West	
525	23	EchoStar 105 West	
819	21	EchoStar 110 West	

**Note:** If the **Results** menu displays **No Transponders have been found**, check your cable connections and return to step 5 to repeat the scan.

If the second scan does not find any transponders, ask your dwelling complex owner for assistance or call the *Commercial Customer Service Center* at 1-800-454-0843.

7. Select the **Cancel** option to exit the **Results** menu.
8. Select the **Cancel** option to exit the **Scan and Signal Strength** screen.
9. The receiver will display an **Attention** message pop up asking you to verify that the satellite signal is locked and the QAM frequency scan has been completed successfully. Select the **Yes** option.

The receiver will begin accepting a transmission or, download, of the latest software. You will see the message shown below:



A progress bar across the bottom of the screen will show the software upgrade as it downloads. Once the download is complete, you will see a second message that the receiver's memory is now being programmed.

**Note:** This message may disappear and your screen may go blank for a few minutes. This is normal and does not indicate a problem with the receiver.

Your receiver will now display the **Preview Channel**, which tells you about available programs, channels and services.

To activate your programming on your receiver you must call the *Commercial Customer Service Center* at 1-800-454-0843. See the *Quick Start Guide* in Chapter 1 for complete instructions.

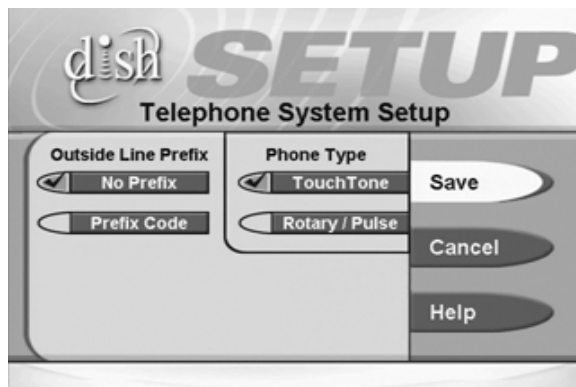
## Connecting Your Receiver to a Phone Line

You *must* keep your 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 the RJ-11 telephone cable supplied with your receiver from your 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, such as Caller ID.

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

1. Press the MENU button.
2. Select the **Installation and Setup** option.
3. Select the **Telephone System** option to display the **Telephone System Setup** menu.
4. Select the **Touch Tone** or the **Rotary/Pulse** option in the **Phone Type** list.
5. If you do not need a dialing prefix to call outside your premises, select the **Save** option, and stop here. If you do need to set a prefix to dial outside your premises (for example, dial 9 to get an outside line), go to step 5.

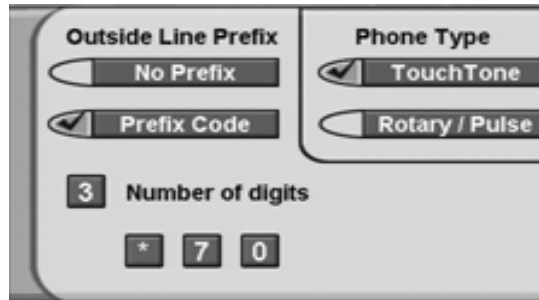


**Tip:** If you have the receiver connected to a Digital Subscriber Line (DSL) on the phone line, you may need to install a DSL filter between the receiver and the telephone jack. You can obtain the filter from your DSL provider.

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**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.

6. Move the highlight to the **Outside Line Prefix** list. Press the **SELECT** button to select the highlighted option.
7. Select the **Prefix Code** option. The receiver displays the same number of boxes (highlighting the first box) where you must enter the digits. Use the Number Pad to enter the prefix code. As you enter each number, the highlight moves to the next box.



8. When you have completed entering all of your numbers, the **Telephone System Setup** screen will return. Select the **Save** option to save the settings.