

# Chapter 5

---

## Reference

### Troubleshooting Tables

---

Use these tables if you have problems using the system. Look in this section for a description of the problem *before* calling the Customer Service Center. Many problems arise from basic 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. Look down the *What Is Happening* column until you find the problem.
3. For better understanding, read the information in the *Possible Reason* column.
4. Try each of the suggested solutions in the *What to Do* column.
5. For more information, call the Customer Service Center at 1-800-333-DISH (3474), or see [www.dishnetwork.com](http://www.dishnetwork.com).

**Note:** Before calling the Customer 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 *System Information* screen to find these numbers (See *Ordering your Programming*). Also, write down any error messages that the receiver displays on the television screen.

### Troubleshooting by Message Number

Message Number	Possible Reason	What to Do
001	There may be a problem with the multi-dish switch.	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). Run <b>Check Switch</b> . If this does not work, call the Customer Service Center at 1-800-333-DISH (3474) for help.
002	Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal, or there may be other interference.	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 <b>Point Dish</b> menu. Consult your installer to re-aim the dish, if necessary, to obtain the strongest possible signal.
003, 004	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.	Make sure the system uses RG6 coaxial cable; if not, call your dealer or installer. Check the dish-to-receiver cable run length. If your entire system is DishPro, it can be as much as 200 feet. If it is a Legacy system, it should not be more than 100 feet. 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 <b>Check Switch</b> test.
005	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 <b>Signal Strength</b> bar in the <b>Point Dish</b> menu is green and displays the word <b>Locked</b> . If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center at 1-800-333-DISH (3474) for help.
006	The receiver may not be connected to an active telephone line. The Smart Card credit limit may have been suspended.	<i>You must</i> connect the receiver to an active telephone connection at all times. If you install two or more receivers, you <i>must</i> connect <i>each</i> receiver to an active telephone connection at <i>all</i> times. Review your pay per view purchases to check the Smart Card credit limit.
011, 012	Viewers in specific areas are prohibited from watching certain programs. <i>For example</i> , viewers who live close to a particular football stadium may be prohibited from watching football games that are played in that stadium.	Remember that the program providers specify which programs are “blacked out” for which viewers, <i>not</i> DISH Network <sup>SM</sup> .
013, 014	You may have tried to tune to a program on a channel which you have not bought.	<i>You must</i> buy a channel <i>before</i> you can tune to a program on that channel. Call the Customer Service Center at 1-800-333-DISH (3474) to buy the channel, or if you believe this message was displayed by mistake.

Troubleshooting by Message Number

Message Number	Possible Reason	What to Do
015	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 <b>Signal Strength</b> bar in the <b>Point Dish</b> menu is green and displays the word <b>Locked</b> . If not, contact your installer to re-aim the satellite dish.
018	The receiver may not be connected to an active telephone line. The Smart Card credit limit may have been exceeded.	You <i>must</i> connect the receiver to an active telephone connection at all times. If you install two or more receivers, you <i>must</i> connect <i>each</i> receiver to an active telephone connection at <i>all</i> times. Review your pay per view purchases to check the Smart Card credit limit. Call the Customer Service Center at 1-800-333-DISH (3474) for help checking the credit limit and/or to get authorization to make a purchase.
019	The Smart Card may be inserted up side 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.
020	The receiver will work <i>only</i> 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 at 1-800-333-DISH (3474) for help.
021	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.
022	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 <b>Signal Strength</b> bar in the <b>Point Dish</b> menu is green and displays the word <b>Locked</b> . If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center at 1-800-333-DISH (3474) for help.
026	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 <b>Signal Strength</b> bar in the <b>Point Dish</b> menu is green and displays the word <b>Locked</b> . If not, contact your installer to re-aim the satellite dish.
028	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 <i>not</i> 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.
032	You may have tried to set a <i>VCR Event Timer</i> without having set up the receiver to control the VCR.	You <i>must</i> set up the receiver to control the VCR <i>before</i> you can set a <i>VCR Event Timer</i> . See the <i>User Guide</i> for instructions.
059	You may have tried to close an installation menu without having done the <b>Check Switch</b> test.	If your setup includes a multi-dish switch, you <i>must</i> run the <b>Check Switch</b> test.

### Troubleshooting by Message Number

Message Number	Possible Reason	What to Do
060	You may have aimed the satellite dish at one satellite, but selected the option for another satellite on the <b>Point Dish</b> menu.	Make sure that you have selected the option for the right satellite on the <b>Point Dish</b> 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.
061	You may have set up the receiver to accept a transmission (a "download") of the latest operating software via the satellite signal.	It is <i>very</i> important for the receiver to get the latest operating software, so let the receiver do so. The "download" may take several minutes. Do <i>not</i> disturb or unplug the receiver during this time.
074	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.	Wait a few minutes and then try again to enter the password. <b>Note:</b> 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.
078, 079, 080	You may not have connected the receiver to an active telephone line, or the telephone line may be defective.	Connect the receiver to an active telephone line. Make sure that the telephone line to which you connect the receiver is working properly. <b>Note:</b> To be able to order pay per view programs, you <i>must</i> keep the receiver connected to an active telephone line at all times. If your setup includes more than one receiver, this applies to <i>each</i> 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 at 1-800-333-DISH (3474).
093	You may have set up the receiver to reset itself back to the "factory defaults," <i>that is</i> , the settings it had when it was shipped from the factory.	If you want to reset the receiver to its factory default settings, select the <b>Yes</b> option. If not, select the <b>No</b> option.

### Troubleshooting Problems with DishPro Twin LNBF

What's Happening	What's Wrong	What You Can Do
When you run Check Switch, you do not see "Twin" identified as a Device or LNB. All entries show "X"s.	<ul style="list-style-type: none"> <li>The DishPro Twin LNBF may not be properly connected.</li> <li>Cables may be too long, over 200 feet.</li> <li>Cables may not be rated for 2150 MHz.</li> <li>You may have DishPro Adapter installed on a DishPro receiver.</li> <li>May have a non-DishPro switch or LNB or incompatible accessory device* in the system.</li> </ul>	<ul style="list-style-type: none"> <li>Check all cable connections in your system and run Check Switch again.</li> <li>Make sure cable length between receiver and DishPro Twin does not exceed 200 feet. Rerun check switch.</li> <li>Make sure cable is rated for 2150 MHz. Rerun check switch.</li> <li>Remove the DishPro Adapter; this device is only for non-DishPro receivers. Rerun check switch.</li> <li>Remove any non-DishPro switches/LNBs or incompatible accessory devices* from the system. All LNBs and switches must be DishPro. Rerun check switch.</li> </ul>
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".	<ul style="list-style-type: none"> <li>The DishPro Twin LNBF is connected but no satellite signal is present.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>

### Troubleshooting Problems with DishPro Twin LNBF

What's Happening	What's Wrong	What You Can Do
When you run Check Switch, you see "Satellite Reception Verified" but you see "Feed" instead of "Twin" identified as the Device/LNB.	<ul style="list-style-type: none"> <li>The DishPro Twin is connected but something in the system may be blocking the switch commands.</li> </ul>	<ul style="list-style-type: none"> <li>Check the cable path between the DishPro Twin and the receiver and remove any incompatible accessory devices*. Rerun check switch.</li> </ul>
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.	<ul style="list-style-type: none"> <li>The DishPro Twin is connected but something in the system may be blocking the switch commands.</li> <li>You may have DishPro Adapter installed on a DishPro receiver.</li> <li>May have a non-DishPro switch or LNB in the system</li> </ul>	<ul style="list-style-type: none"> <li>Check the cable path between the DishPro Twin and the receiver and remove any incompatible accessory devices*. Rerun check switch.</li> <li>Remove the DishPro Adapter; this device is only for non-DishPro receivers. Rerun check switch.</li> <li>Remove any non-DishPro switches/LNBs from the system. All LNBs and switches must be DishPro. Rerun check switch.</li> </ul>
When you run Check Switch, you see "Twin" identified as the Device/LNB but you only have signal confirmed from one satellite.	<ul style="list-style-type: none"> <li>The DishPro Twin LNBF is connected but the dish may not be pointed to receive signal from both 110 and 119 satellites.</li> </ul>	<ul style="list-style-type: none"> <li>If the check switch summary screen shows "119 W" on Dish Input 2, you need to point your dish 9 degrees to the east and re-peak your dish. Rerun check switch.</li> <li>If the check switch summary screen shows "110 W" on Dish Input 1, you need to point your dish 9 degrees to the west and re-peak your dish. Rerun check switch.</li> <li>Make sure skew setting is correct for a Dish 500 installation at your zip code. Rerun check switch.</li> </ul>
When you run Check Switch, you see "Twin" identified as a Device or LNB, but only odd transponders are detected.	<ul style="list-style-type: none"> <li>Cables may not be rated for 2150 MHz.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure cable is rated for 2150 MHz and all accessory devices are compatible. Rerun check switch.</li> </ul>
Getting receiver messages that signal is lost or being acquired	<ul style="list-style-type: none"> <li>Check the weather conditions to see if heavy rain or snow could be temporarily block the signal.</li> <li>Check for any obstructions in way of the dish like new growth on trees</li> </ul>	<ul style="list-style-type: none"> <li>Wait for weather to clear up and restore signal.</li> <li>Clear obstructions from the signal path.</li> </ul>

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

### Troubleshooting Problems Hearing A Program

What Is Happening	Possible Reason	What to Do
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.	<ul style="list-style-type: none"> <li>You may have muted the sound, or set the volume so low that you cannot hear it.</li> <li>The audio connections may not be properly connected.</li> <li>You have selected Dolby Digital Only when there is not Dolby Digital soundtrack.</li> </ul>	<ul style="list-style-type: none"> <li>Check the volume level on the TV or audio device. Turn off the mute or turn up the volume, as required.</li> <li>Check the audio connectors and cables from the receiver to the TV or the sound system.</li> <li>Check the TV speakers or the sound system.</li> <li>In the Dolby Digital menu, select Dolby Digital/PCM for the audio output. If your decoder/amplifier will not accept Linear PCM digital input, use the analog connections instead.</li> </ul>
You hear a foreign language with a program.	<ul style="list-style-type: none"> <li>You may have set the receiver to select an alternate audio language. The program may be in a foreign language.</li> </ul>	<ul style="list-style-type: none"> <li>Use the <b>Alternate Audio Language</b> menu to select the language that you prefer.</li> </ul>

### Troubleshooting Problems with the Remote Control

What Is Happening	Possible Reason	What to Do
You cannot find the remote control.		<ul style="list-style-type: none"> <li>Use the receiver front panel <b>Control Buttons</b> to control the receiver until you find the remote. If the remote control is permanently lost or too damaged to use, call the Customer Service Center at 1-800-333-DISH (3474) to order a replacement.</li> </ul>
When you press a button on the remote control, the receiver does not do what you expect.	<ul style="list-style-type: none"> <li>The remote control may be missing batteries, the batteries may be incorrectly placed in the remote, or the batteries may be weak or dead.</li> <li>The remote control address may be incorrect.</li> <li>The UHF antenna may not be connected on the back of the receiver.</li> </ul>	<ul style="list-style-type: none"> <li>If the batteries are missing or dead, insert fresh AAA-size batteries. If the remote has fresh batteries, check whether they were placed according to the label diagram. If not, remove them and place them correctly.</li> <li>Check the remote control address.</li> <li>Connect the UHF antenna and make sure it is pointing straight up and not touching anything.</li> </ul>
When you press the remote control <b>Power</b> button to turn the receiver ON, the receiver front panel Power light does not light up.	<ul style="list-style-type: none"> <li>You may not be able to see that the receiver Power light is on, if other lights in the room are too bright. The remote control may not be operating properly or the batteries may be weak or dead.</li> <li>The receiver power cord may not be plugged into a power outlet, or there may be a problem with the power.</li> <li>The remote control's address may be incorrect.</li> <li>The UHF antenna may not be connected on the back of the receiver.</li> </ul>	<ul style="list-style-type: none"> <li>Try other remote control buttons to see if the receiver is responding. Replace the remote control batteries with fresh ones.</li> <li>Check that the receiver power cord is not damaged, and that the plug is inserted correctly into the outlet. Try to turn on the receiver with the front panel <b>Power</b> button.</li> <li>Check the remote control address.</li> <li>Connect the UHF antenna and make sure it is pointing straight up and not touching anything.</li> </ul>
You are programming the remote and the receiver "times out" and goes back to showing the program you were watching.	<ul style="list-style-type: none"> <li>If you do not press any button for 20 seconds, the receiver "times out," and goes back to showing the program you were watching.</li> <li>If you hold down a button for a long period of time (two minutes or more), the receiver "times out," and goes back to showing the program you were watching.</li> </ul>	<ul style="list-style-type: none"> <li>Start over.</li> </ul>

Troubleshooting Problems Watching A Program

What Is Happening	Possible Reason	What to Do
<p>The receiver front panel Power light is on, but the TV image: is black (no picture), is frozen, has break-ups, has "snow," or shows small squares of various colors.</p>	<ul style="list-style-type: none"> <li>• The TV set may not be working properly.</li> <li>• The TV may be connected to the wrong input.</li> <li>• Make sure the TV is set up correctly.</li>   <li>• If the TV and the receiver are working properly, there may be interference with the satellite signal.</li>   <li>• You might be in an HD output mode while trying to use the SD connections, or vice-versa.</li> <li>• You have selected an HD mode your HDTV does not support.</li> <li>• You have deactivated qualifying programming on your receiver so that it will no longer display HD format.</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure that the TV set is plugged into an electrical outlet.</li> <li>• 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 <b>Channel 3/4 Switch</b> is set to the same channel as the TV.</li> <li>• Make sure that the TV brightness and contrast are adjusted correctly.</li> <li>• Make sure that the TV is connected properly to the receiver.</li> <li>• Make sure that the TV's text mode and closed captioned features are turned off.</li> <li>• Set the TV to SVIDEO or VIDEO input if using composite or S-Video from the receiver.</li> <li>• Check that the system has been installed correctly.</li> <li>• Make sure that all required coaxial cables are in place, and check that all cable connectors are tight and dry (for outdoor cables).</li> <li>• Make sure that the satellite dish has a clear line of sight to the satellite.</li> <li>• Check whether branches or leaves have grown into the line of sight.</li> <li>• Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the <b>Point Dish and Signal Strength</b> menu. Consult your installer to re-aim the dish, if necessary, to obtain the maximum possible signal strength.</li> <li>• 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.</li> <li>• Check your receiver selections.</li>   <li>• Check your selection of HD or SD output.</li>   <li>• Revert to Safe Mode, by holding the Output button down for 3 seconds. This should restore your picture.</li>   <li>• Purchase qualifying programming.</li> </ul>

What Is Happening	Possible Reason	What to Do
<p>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.</p>	<ul style="list-style-type: none"> <li>• The TV set may not be working properly.</li> <li>• 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.</li> <li>• There may be interference from other nearby electrical devices (such as radio towers, cellular telephones, computers, microwave ovens, radios, stereos, or TVs).</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure that the TV brightness and contrast are adjusted correctly, and that the TV is working properly.</li> <li>• Make sure that the TV is connected properly to the receiver.</li> <li>• Check other nearby electrical devices as possible sources of interference.</li> <li>• Check that all required coaxial cables are in place.</li> <li>• Check for moisture or water leaking into all connections. Dry them out if needed, then seal them with coaxial cable sealant.</li> <li>• Check the dish-to-receiver cable run length; if it is over 100 feet, call your dealer or installer.</li> <li>• Make sure the system is properly grounded.</li> </ul>
<p>A “black box” fills almost all of the TV screen.</p>	<ul style="list-style-type: none"> <li>• You may have turned on the Closed Captioned feature on the TV, and put that feature into Text mode.</li> </ul>	<ul style="list-style-type: none"> <li>• Using the TV remote control and/or menus displayed by the TV (<i>not</i> the receiver remote control or the menus displayed by the receiver), turn off the closed captioned feature.</li> </ul>
<p>The TV screen is all blue.</p>	<ul style="list-style-type: none"> <li>• You may have connected the receiver to an input on the TV that is incorrect for the signal output from the receiver.</li> </ul>	<ul style="list-style-type: none"> <li>• Check your TV owner’s manual for the correct TV input to use for the signal output from the receiver.</li> </ul>

### Troubleshooting Problems Using the Menus

What Is Happening	Possible Reason	What to Do
<p>You were using a menu, and it suddenly closed.</p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Start over again.</li> </ul>

### Troubleshooting Problems Using the Program Guide or the Browse Banner

What Is Happening	Possible Reason	What to Do
In the <b>Program Guide</b> , some channels have a red background.	<ul style="list-style-type: none"> <li>Red means that you have not subscribed to that channel. You <i>must</i> subscribe to a channel before you can tune the receiver to it.</li> </ul>	<ul style="list-style-type: none"> <li>If you want to buy a channel, call the Customer Service Center at 1-800-333-DISH (3474).</li> </ul>
You try to display future programs in the <b>Program Guide</b> or <b>Browse Banner</b> , but find you cannot.	<ul style="list-style-type: none"> <li>The <b>Program Guide</b> and <b>Browse Banner</b> can display programs scheduled for an extended, but not unlimited time beyond the present.</li> </ul>	<ul style="list-style-type: none"> <li>Try displaying the <b>Program Guide</b> again later. By that time, it may show programs for the time and date you want.</li> </ul>
You try to display programs that have ended in the <b>Program Guide</b> or <b>Browse Banner</b> , but find you cannot.	<ul style="list-style-type: none"> <li>The <b>Program Guide</b> and <b>Browse Banner</b> can display <i>only</i> programs that have not yet ended. These features <i>cannot</i> display a time earlier than the present.</li> </ul>	<ul style="list-style-type: none"> <li>Contact the program providers (for example, the channel or network affiliate that broadcast the program) for details on past programs.</li> </ul>
The <b>Program Guide</b> is in the wrong order.	<ul style="list-style-type: none"> <li>The <b>Program Guide</b> is set incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>Press the Menu button on your remote control, select <b>Preferences</b>, select <b>View Preferences</b>, and then set your <b>Program Guide</b> in the order you wish to view the channels.</li> </ul>
When you are using the <b>Program Guide</b> or <b>Browse Banner</b> , some channels are missing.	<ul style="list-style-type: none"> <li>You may have applied a Favorites List other than the list named <b>All Chan</b>. You may have set up the <b>Program Guide</b> so that when the receiver is locked, the <b>Guide</b> hides adult channels. If your setup includes a multi-dish switch, you may need to do the <b>Check Switch</b> procedure.</li> </ul>	<ul style="list-style-type: none"> <li>You can change the applied Favorites List while using the <b>Program Guide</b> by pressing the remote control <b>Guide</b> button. You can choose another custom Favorites List, the <b>All Chan</b> list, which includes all the channels, or the <b>All Sub</b> list, which includes all subscribed channels. Unlock the receiver for the <b>Program Guide</b> to display adult channels.</li> </ul>

### Troubleshooting Problems Changing Channels

What Is Happening	Possible Reason	What to Do
<p>You enter a desired channel number. The channel changes, but the new channel is not exactly the channel you entered.</p> <p>You are scanning up or down through the channels, and the receiver is skipping channels that you know you have subscribed to.</p>	<ul style="list-style-type: none"> <li>You may have made a mistake entering the channel number, or the channel number you entered may be invalid.</li> <li>If so, the channel displayed is the closest possible to the channel you entered.</li> <li>If you entered the number for a channel that you have not subscribed to, the receiver will change to the channel and display a message suggesting that you might want to subscribe to the channel.</li> <li>If a Favorites List other than <b>All Chan</b> is applied, the receiver will skip channels that are not on the applied list.</li> <li>If you have set up the <b>Program Guide</b> to hide adult channels and the receiver is locked, the receiver will skip such channels.</li> </ul>	<ul style="list-style-type: none"> <li>Carefully try entering again the channel number you want. Select <b>All Chan</b> as the active Favorites List. Unlock the receiver so that it does not skip adult channels. If you want to buy a channel, call the Customer Service Center at 1-800-333-DISH (3474).</li> </ul>

### Troubleshooting Problems Using Favorites Lists

What Is Happening	Possible Reason	What to Do
You press the remote <b>Guide</b> button while the <b>Program Guide</b> is displayed. You find that you can apply <i>only</i> the <b>All Chan</b> list or the <b>All Sub</b> list.	<ul style="list-style-type: none"> <li>If you have not added channels to any custom Favorites List, you will be able to apply <i>only</i> the <b>All Chan</b> list or the <b>All Sub</b> list.</li> </ul>	<ul style="list-style-type: none"> <li>You <i>must</i> add channels to a custom Favorites List <i>before</i> you can apply it.</li> </ul>
You try to change the <b>All Chan</b> list or the <b>All Sub</b> list. The receiver displays an <b>ERROR</b> message.	<ul style="list-style-type: none"> <li>The receiver will <i>not</i> allow you to change the <b>All Chan</b> list or the <b>All Sub</b> list.</li> </ul>	<ul style="list-style-type: none"> <li>Choose another list to change. <b>Note:</b> You <i>can</i> change the <b>All Sub</b> list by changing what channels you buy.</li> </ul>
You try to apply an empty Favorites List. The receiver displays an <b>ERROR</b> message.	<ul style="list-style-type: none"> <li>The receiver will not allow you to apply an empty list.</li> </ul>	<ul style="list-style-type: none"> <li>Choose another list to apply, or add at least one channel to the empty list.</li> </ul>
A Favorites List does not show channels that you know you have added to it.	<ul style="list-style-type: none"> <li>If you have set up the <b>Program Guide</b> to hide adult channels and the receiver is locked, the Favorites List will not show such channels.</li> </ul>	<ul style="list-style-type: none"> <li>Unlock the receiver for the list to show adult channels.</li> </ul>

### Troubleshooting Problems Using Locks

What Is Happening	Possible Reason	What to Do
You set a lock ( <i>for example</i> , a lock on programs by ratings), but the lock does not take effect.	<ul style="list-style-type: none"> <li>You may not have locked the receiver.</li> <li>You are trying to set a ratings lock on an off-air channel.</li> </ul>	<ul style="list-style-type: none"> <li>You <i>must</i> lock the receiver to apply any lock that you have set.</li> <li>Ratings locks do not work with off-air channels.</li> </ul>
You forgot the password, so that you are unable to unlock the receiver.	<ul style="list-style-type: none"> <li>You may not have written down the password, to keep it in a safe place.</li> </ul>	<ul style="list-style-type: none"> <li>Call the Customer Service Center at 1-800-333-DISH (3474). You <i>must</i> provide the following information: (1) your name; (2) your address; (3) your telephone number; (4) the receiver serial identification number; and (5) your Digital Identification Number (PIN), if you use one.</li> </ul>

### Troubleshooting Problems Buying a Pay Per View Program

What Is Happening	Possible Reason	What to Do
Someone orders a pay per view program without your permission.	<ul style="list-style-type: none"> <li>You may have been away from the receiver, and someone else used it.</li> </ul>	<ul style="list-style-type: none"> <li>Lock the purchase of pay per view programs. <i>Remember that you are responsible for all pay per view purchases, whether or not you authorize such purchases.</i> If you lock pay per view purchases, then anyone who wants to order a pay per view program <i>must</i> enter the password.</li> </ul>
You find that you are not able to order a pay per view program.	<ul style="list-style-type: none"> <li>The receiver may not be connected to an active telephone line.</li> <li>The Smart Card credit limit may have been exceeded.</li> </ul>	<ul style="list-style-type: none"> <li>You <i>must</i> connect the receiver to an active telephone connection at all times. If you install two or more receivers, you <i>must</i> connect <i>each</i> receiver to an active telephone connection at <i>all</i> times.</li> <li>Review your pay per view purchases to check the Smart Card credit limit.</li> </ul>

You find that you are not able to cancel a pay per view program.	<ul style="list-style-type: none"> <li>You ordered a pay per view program, and then decided not to watch it.</li> </ul>	<ul style="list-style-type: none"> <li>You <i>cannot</i> cancel an order for a pay per view program, whether it was just ordered or ordered earlier.</li> </ul>
Your setup includes more than one receiver. You order a pay per view program, but it does not appear via all of the receivers.	<ul style="list-style-type: none"> <li>You ordered a pay per view program, and want it to be available via all the receivers in your setup.</li> </ul>	<ul style="list-style-type: none"> <li>If you want to watch a pay per view program on TVs connected to up to six receivers, you must <i>order</i> the program for <i>each</i> receiver but you only <i>pay</i> for the program <i>once</i>.</li> </ul>

**Troubleshooting Problems Using the Telephone for Voice/Data/FAX**

<b>What Is Happening</b>	<b>Possible Reason</b>	<b>What to Do</b>
While you are making a telephone call, you hear “clicks.”	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
You pick up the telephone to make a call, but you do not hear a dial tone.	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Hang up, and then pick up the telephone again to get a dial tone.</li> </ul>
Your computer or facsimile (FAX) machine tries to send a FAX or modem transmission, but fails.	<ul style="list-style-type: none"> <li>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. The FAX or modem found that there was no dial tone, and cancelled the transmission.</li> </ul>	<ul style="list-style-type: none"> <li>Resend the FAX or modem transmission.</li> </ul>
Your computer or FAX machine was receiving a FAX or modem transmission, but an error occurred.	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Have the sender resend the FAX or modem transmission.</li> </ul>

**Troubleshooting Problems with Caller ID**

<b>What Is Happening</b>	<b>Possible Reason</b>	<b>What to Do</b>
Caller ID is not working.	<ul style="list-style-type: none"> <li>You do not have Caller ID service from your local phone company.</li> <li>Your phone line is not connected to the phone jack on the back of the receiver.</li> <li>You do not have the Caller ID option enabled.</li> </ul>	<ul style="list-style-type: none"> <li>Verify that Caller ID is a service provided by your local phone company.</li> <li>Verify that you have connected the phone line to the phone jack on the back of the receiver.</li> <li>Verify that you have enabled the Caller ID option on the <b>View Preferences</b> screen.</li> </ul>

### Troubleshooting Problems Using Event Timers

What Is Happening	Possible Reason	What to Do
You try to set up an event timer and the receiver displays a message noting that the program is locked.	<ul style="list-style-type: none"> <li>You <i>must</i> enter the password <i>before</i> you can create an event timer for a locked program.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to set up an event timer for the program, first enter the password.</li> </ul>
You try to set up an event timer and the receiver displays a message noting that the program is a pay per view event.	<ul style="list-style-type: none"> <li>You <i>must</i> order a pay per view event <i>before</i> you can create an event timer for it.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to set up an event timer for the event, first order it.</li> </ul>
You try to set up an event timer, but the receiver displays an <b>Error</b> message giving you the option to delete an event timer that was set up earlier.	<ul style="list-style-type: none"> <li>You already have set up the maximum number of event timers.</li> </ul>	<ul style="list-style-type: none"> <li>To be able to set up a new event timer, delete one of the event timers you set up earlier.</li> </ul>
You set up an event timer, but the receiver does not tune to the channel of the program, or does not record the program.	<ul style="list-style-type: none"> <li>You may have set up a <i>Reminder Event Timer</i> but what you should have set up is an <i>Auto-Tune Event Timer</i>, a <i>VCR Event Timer</i>, or a <i>DVR Event Timer</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Remember that a <i>Reminder Event Timer</i> just reminds you that the program is about to start. An <i>Auto-Tune Event Timer</i> reminds you and tunes the receiver to the program. A <i>VCR Event Timer</i> reminds you, tunes the receiver, and starts the VCR recording. A <i>DVR Event Timer</i> reminds you, tunes the receiver, and starts the hard disk. A <i>DVR Event Timer</i> can operate <i>only</i> if the receiver memory has enough space.</li> </ul>
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.	<ul style="list-style-type: none"> <li>You may have set up a timer with an incorrect frequency.</li> </ul>	<ul style="list-style-type: none"> <li>Remember that a <i>Once</i> event timer operates just one time. A <i>Mon.-Fri.</i> event timer operates Monday through Friday on the same channel at the same time. A <i>Daily</i> event timer does the same, Monday through Sunday. A <i>Weekly</i> event timer operates once a week on the same channel at the same time.</li> </ul>
You set up an event timer, but the timer does not operate at all.	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>If the receiver is ON and finds an event timer overlap, it will display the <b>Event Timer Scheduling Conflict</b> menu. You <i>must</i> 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.</li> </ul>
You set up a <i>Once</i> event timer, but the timer operates at a time different from what you expect.	<ul style="list-style-type: none"> <li>The program time changed.</li> </ul>	<ul style="list-style-type: none"> <li>A <i>Once</i> event timer always operates at the actual time of the program.</li> </ul>
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.	<ul style="list-style-type: none"> <li>Stopping the event timer applies <i>only</i> to the current showing of the program.</li> </ul>	<ul style="list-style-type: none"> <li>To stop all operations of a repeated event timer, you <i>must</i> delete the event timer. <b>Note:</b> The receiver deletes a <i>Once</i> event timer when it operates.</li> </ul>
You are testing a VCR code to see if the receiver controls a VCR. The VCR does not do the test.	<ul style="list-style-type: none"> <li>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.</li> <li>The code you are testing may not be valid for the VCR.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Try another VCR code from the <b>VCR Codes</b> table.</li> </ul>

Troubleshooting Problems Using Event Timers

What Is Happening	Possible Reason	What to Do
<p>You set up a <i>VCR Event Timer</i>, but the VCR does not record the program you want.</p>	<ul style="list-style-type: none"> <li>• You may not have turned the VCR ON, inserted a tape, or rewound the tape. Or, the write-protect tab on the tape may have been removed.</li> <li>• If you use the receiver back panel RF or VHF connections in the wiring setup, you may not have set the receiver channel 3/4 setting and both the VCR modulator output and viewing channel to either 3 or 4.</li> <li>• There may be obstacles between the receiver and the VCR.</li> <li>• If you set up the <i>VCR Event Timer</i> using the <b>Create an Event Timer</b> menu, you may have selected an <i>Auto-Tune</i>, <i>Reminder</i>, or <i>DVR</i> timer instead of a <i>VCR</i> timer. If you did select a <i>VCR</i> timer, you may have selected an inappropriate timer frequency.</li> <li>• If you set up the <i>VCR Event Timer</i> using the quick record feature, the timer was one-time only, and may have missed another showing of the program.</li> <li>• Video signal must be present on the SD outputs for a VCR to be able to record</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure the VCR is turned ON, with a tape inserted on which you want to record, that the tape is rewound, and that the write-protect tab on the tape is intact.</li> <li>• If you use the RF or VHF connections, you <i>must</i> set the receiver channel 3/4 setting and <i>both</i> the VCR modulator output <i>and</i> viewing channel to either 3 or 4.</li> <li>• Remove any obstacles between the receiver and the VCR.</li> <li>• When you set up a <i>VCR Event Timer</i>, make sure to select the <i>VCR</i> option in the <b>Timer Type</b> list on the <b>Create an Event Timer</b> menu. Also, make sure to select the proper option in the <b>Timer Frequency</b> list on this menu.</li> <li>• Remember that you can set up only a <i>Once</i> (one-time only) timer using the quick record feature.</li> <li>• Make sure the receiver has video signal present on the SD outputs during the program.</li> </ul>
<p>You edit an <i>automatic</i> event timer. The timer does not start or does not end according to the program for which you set the timer.</p>	<ul style="list-style-type: none"> <li>• Editing an <i>automatic</i> event timer <i>converts</i> it to a <i>manual</i> event timer. Such a timer starts and stops at the times you specify, <i>not</i> the start and stop times of any specific program.</li> </ul>	<ul style="list-style-type: none"> <li>• If you want an <i>automatic</i> event timer to start and stop according to a specific program, avoid editing that event timer.</li> </ul>
<p>You try to set up a <i>manual</i> event timer. The receiver displays an <b>Error</b> message.</p>	<ul style="list-style-type: none"> <li>• You may have tried to set a <i>manual</i> event timer with invalid start or stop times.</li> </ul>	<ul style="list-style-type: none"> <li>• Review the rules on start and stop times for <i>manual</i> event timers.</li> </ul>
<p>The receiver does not display the program name for a <i>manual</i> event timer.</p>	<ul style="list-style-type: none"> <li>• The receiver may not be able to display a program name for a <i>manual</i> event timer.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the <b>Program Guide</b> or a printed schedule to find the program name.</li> </ul>
<p>You set an event timer. The event timer misses the beginning or the end of a program.</p>	<ul style="list-style-type: none"> <li>• The program may have started a little earlier than scheduled, or it may have run over its scheduled ending time.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the <b>Start 1 min. early</b> option to start any event timer one minute early, except for a pay per view event. Use a manual event timer to start any event timer at the times you set yourself, except for a pay per view event.</li> </ul>

## Device Codes

These tables contain the manufacturer codes for programming the remote to control your TV, VCR, DVD player, or audio amplifier. Every attempt has been made to include all codes. If your device brand is not listed or if the codes do not work, the remote may not control your device. In some cases codes may operate some but not all buttons shown in this guide.

### TV

TV Brand	Codes
A Mark	670
Action	662
Admiral	514, 521, 605, 668, 669, 675
Aiko	727
Aiwa	751
Akai	570, 573, 659, 660,
A-Mark	620
Amtron	657
Anam National	509, 541, 620, 651, 657, 661, 663, 698
AOC	505, 506, 519, 520, 573, 620, 627, 652, 653, 654, 659, 664, 665, 670, 672
Apex	743, 744, 745
Archer	620
Audiovox	620, 657, 662, 672
Bell & Howell	590, 669, 675
Broksonic	752, 659, 661, 748
Capehart	519, 627
Citizen	506, 516, 523, 524, 525, 526, 590, 652, 654, 657, 658, 680, 727
Classic	659
Colorlyme	573, 627, 652, 654, 660, 667, 668, 671, 674, 679, 681
Contec/Cony	541, 655, 657, 661, 662, 726
Craig	536, 541, 657, 661, 662, 666, 667, 694
Crown	526, 536, 657, 666, 670
Curtis Mathes	506, 516, 526, 573, 590, 641, 645, 650, 652, 654, 658, 659, 660, 664, 665, 667, 668, 670, 674, 680, 703, 708
Daewoo	505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727
Daytron	526, 627, 652, 654, 658, 665, 670, 672
Dimensia	645, 650
DISH Network	742

TV Brand	Codes
Dixi	566, 620
Dumont	501, 627, 652
Echostar	722
Electrohome	526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728
Emerson	526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 648, 652, 654, 655, 657, 658, 659, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 692, 696, 699, 720
Envision	506, 573, 652, 654, 660, 664
Fisher	542, 590, 683
Fujitsu	534, 682, 694
Funai	534, 541, 657, 661, 662, 677, 682, 694
GE	508, 509, 543, 544, 630, 645, 646, 650, 651, 652, 654, 659, 661, 663, 665, 667, 668, 670, 673, 676, 681, 690, 691, 698, 701, 715, 716, 725, 728, 742
Goldstar	505, 523, 526, 545, 546, 566, 573, 652, 653, 654, 655, 656, 658, 659, 660, 664, 665, 670, 671, 678, 693, 730, 747
Gradiente	660, 671
Granada	627, 670, 671
Grundig	670, 673
Hallmark	627, 652, 654, 659
Harmon/Kardon	561, 659
Hinari	534
Hitachi	523, 526, 548, 549, 553, 554, 555, 585, 597, 626, 636, 638, 643, 648, 652, 654, 655, 665, 668, 669, 670, 672, 673, 702, 718, 726
Infinity	566, 671
JBL	566, 671

TV Brand	Codes
JC Penney	505, 506, 516, 525, 526, 543, 546, 631, 645, 646, 650, 652, 653, 654, 658, 659, 664, 667, 668, 670, 673, 676, 678, 680, 690, 691, 701, 725, 726, 728, 730
Jensen	556, 573, 652, 654, 660
JVC	508, 557, 559, 642, 649, 655, 667, 673, 676, 726, 735, 736, 737
Kawasho	548, 561, 573, 652, 654, 664
Kenwood	506, 573, 652, 654, 656, 659, 660, 664, 679, 681
Kloss Novabeam	657, 663, 698, 723, 724
Konka	753
KTV	526, 539, 541, 573, 657, 658, 661, 662, 664, 665, 670, 696
Lloyds	627, 679
Loewe	566
Logik	675
Luxman	523, 652, 654
LXI	563, 566, 590, 595, 667, 631, 635, 645, 646, 650, 654, 659, 668, 678, 683, 691, 701, 725
Magnasonic	573, 659, 660, 669, 672, 677
Magnavox	506, 520, 525, 536, 566, 567, 568, 573, 610, 652, 654, 656, 659, 660, 664, 665, 666, 669, 671, 673, 674, 677, 723, 724, 729
Majestic	675
Marantz	506, 566, 573, 652, 654, 660, 664, 665, 671, 678, 681
Megatron	627, 654
Memorex	590, 627, 653, 654, 659, 675, 678, 720
MGA	504, 505, 506, 542, 571, 573, 627, 652, 653, 654, 656, 660, 728
Mitsubishi	504, 505, 542, 570, 571, 572, 573, 597, 623, 627, 652, 653, 654, 656, 659, 660, 664, 665, 670, 671, 705, 728

# Chapter 5

## Reference

TV Brand	Codes
Montgomery Ward	675
Motorola	521, 605, 651
MTC	505, 506, 516, 523, 573, 627, 652, 653, 654, 659, 664, 667, 672, 680
Multitech	657
NAD	502, 617, 627, 631, 635, 637, 654
National	509
NEC	505, 506, 507, 517, 523, 573, 627, 651, 652, 653, 654, 660, 664, 665, 679, 681, 731, 732
Nikkai	612
Nikko	654, 672, 727
Onwa	541, 657, 661
Optimus	637
Optonica	521, 605, 607
Orion	694
Osaki	612
Panasonic	508, 509, 510, 512, 566, 644, 651, 662, 663, 668, 672, 673, 676, 685, 689, 698, 700, 716, 234, 247
Philco	505, 506, 525, 536, 568, 573, 610, 651, 652, 653, 654, 655, 656, 659, 660, 664, 665, 666, 669, 671, 672, 674, 677, 723, 724, 729
Philips	525, 566, 651, 652, 655, 656, 671, 690, 723, 724, 729
Pioneer	502, 548, 576, 636, 637, 648, 652, 654, 663, 665, 681, 708
Portland	505, 526, 573, 652, 654, 658, 659, 664, 665, 670, 727
Price Club	680
Prism	676
Proscan	645, 646, 650, 668, 691, 725, 742
Proton	513, 519, 526, 536, 585, 627, 652, 654, 655, 659, 660, 665, 666, 668, 670, 678
Quasar	508, 509, 651, 663, 673, 676, 698, 700, 747
Radio Shack	526, 541, 607, 612, 645, 661, 662, 663, 668, 670, 698
Radio Shack/Realistic	590, 607, 650, 652, 654, 655, 657, 658, 683, 730

TV Brand	Codes
RCA	503, 505, 548, 586, 630, 633, 634, 636, 641, 645, 646, 648, 650, 651, 652, 653, 654, 656, 661, 663, 665, 667, 668, 670, 681, 691, 698, 701, 708, 715, 716, 725, 742, 749
Realistic	590, 645
Runco	501
Sampo	506, 519, 652, 654, 658, 663, 664, 665, 698, 730, 746
Samsung	505, 506, 516, 523, 526, 566, 573, 612, 627, 647, 652, 653, 654, 655, 656, 658, 659, 664, 665, 667, 669, 670, 679, 680, 704, 717, 730, 738
Sansui	754
Sanyo	542, 590, 652, 683
SBR	566
Schneider	566
Scott	526, 534, 537, 541, 600, 652, 654, 655, 657, 661, 662, 665, 670, 677, 682, 696, 701
Sears	523, 534, 542, 563, 590, 595, 601, 604, 617, 627, 631, 635, 645, 646, 650, 652, 654, 656, 659, 661, 668, 670, 682, 683, 688, 691, 703, 725, 726
Sharp	521, 526, 585, 605, 607, 628, 629, 652, 654, 655, 658, 669, 670, 674, 679, 739, 740, 741
Signature	675
Solavox	612
Sony	500, 578, 640, 670, 690
Soundesign	525, 536, 541, 627, 652, 654, 657, 659, 661, 665, 666, 682
Starlite	657
Supra	523
Sylvania	506, 525, 536, 566, 568, 569, 573, 600, 610, 652, 654, 656, 659, 660, 664, 665, 666, 671, 672, 674, 677, 723, 724, 729, 733
Symphonic	632, 657, 662, 677, 692, 694
Tandy	521, 605
Tatung	509, 651, 663, 698
Technics	508, 673, 676
Techwood	523, 573, 652, 654, 660, 676

TV Brand	Codes
Teknika	504, 505, 512, 516, 523, 524, 525, 526, 534, 536, 541, 573, 644, 652, 653, 654, 655, 657, 658, 661, 662, 664, 665, 666, 670, 672, 675, 680, 681, 682, 685, 726, 727
Telefunken	679
Toshiba	516, 590, 617, 631, 635, 667, 678, 680, 683, 688, 750
Totevision	526, 658, 668
Ultra	672
Universal	543, 690
Vector, Research	506
Video Concepts	570, 661
Wards	536, 573, 607, 645, 650, 652, 653, 654, 656, 659, 664, 665, 666, 667, 668, 669, 674, 675, 677, 678, 682, 690, 715, 723, 724, 729
White, Westinghouse	659, 664, 670, 672, 674
Yamaha	505, 506, 573, 652, 653, 654, 656, 664, 666, 672, 679

## VCR

VCR	CODES
Aiwa	588, 622, 623
Akai	513, 514, 515, 516, 517, 518, 520, 568, 682
Alba	546
Amstrad	588
ASA	556
Audiovox	676
Bell & Howell	581
Broksonic	559, 748
Bush	589
Calix	676
Canon	554, 678, 679
Capehart	546
CCE	681
Citizen	534, 591, 592, 594, 675, 676, 677, 684
Colortyme	592,
Craig	591, 658, 675, 676, 681, 685, 687, 688
Curtis Mathes	554, 592, 594, 605, 607, 675, 677, 678, 679, 683, 684
Daewoo	506, 534, 546, 547, 559, 588, 684

VCR	CODES
Daytron	546
Denon	686
Dimensia	607
Dumont	549
Electrohome	512, 676, 687
Emerson	505, 506, 508, 509, 511, 512, 534, 559, 568, 588, 590, 618, 676, 678, 684, 687
Finlandia	549
Finlux	549, 556, 588
Fisher	548, 549, 581, 584, 588, 608, 610, 684, 688
Fuji	678
Funai	588
Garrard	588
GE	550, 551, 552, 554, 572, 591, 605, 607, 675, 678, 679
Go Video	557, 558, 620, 685
Goldstar	592, 594, 676, 687, 747
Goodmans	585, 589
Gradiente	588, 687
Granada	549, 581
Grundig	556
Harmon/Kardon	568, 592
Harwood	681
Hinari	589
Hitachi	536, 538, 539, 540, 588, 595, 597, 680, 682, 686
ITT	518
JC Penney	554, 581, 591, 592, 594, 595, 600, 674, 675, 676, 678, 679, 680, 681, 685, 686, 687
Jensen	595, 680, 682
JVC	561, 562, 563, 581, 592, 594, 600, 674, 682, 686
Kenwood	562, 581, 592, 594, 600, 674, 677, 682, 683
KLH	681
Kodak	676, 678
Lloyds	683, 688
Logik	589, 681, 685
Luxor	518
LXI	676
Magnasonic	685, 687
Magnavox	527, 533, 554, 556, 678, 679, 684, 685
Marantz	554, 556, 581, 585, 592, 594, 600, 602, 674, 677, 678, 683
Matsushita	678

VCR	CODES
Memorex	507, 533, 549, 554, 566, 581, 585, 588, 608, 675, 676, 678, 686, 687, 688
MGA	512, 567, 568
Minolta	595, 680, 686
Mitsubishi	512, 562, 567, 568, 570, 571, 595, 680, 687
Motorola	678
MTC	544, 588, 675, 685
Multitech	579, 588, 675, 677, 681
NAD	573
NEC	562, 581, 592, 594, 600, 602, 674, 677, 682, 683
Nikko	676
Noblex	675
Olympus	678
Optimus	676, 687
Optonica	585
Orion	506, 684, 687
Panasonic	523, 554, 598, 614, 628, 633, 678, 679, 684, 685, 688, 747
Pentax	592, 595, 677, 680, 683, 686
Pentax Research	594
Perdio	588
Philco	554, 678, 679, 686
Philips	554, 556, 585, 678, 684
Pioneer	562, 573, 574, 575, 576, 600, 674, 680,
Portland	546, 677
Proscan	605, 607,
Proton	685
Quasar	554, 678, 679, 747,
Radio Shack	512, 607, 608, 610, 687
Radio Shack/Realistic	581, 584, 588, 608, 675, 676, 678, 679
Radix	676
RCA	518, 525, 527, 528, 591, 595, 605, 607, 615, 631, 649, 675, 678, 680, 686
Realistic	534, 549, 554, 581, 584, 585, 588, 608, 675, 678, 679, 687, 688
Ricoh	502
Runco	533
Saisho	506
Salora	567, 581
Samsung	515, 517, 534, 579, 591, 675
Sansui	544, 562, 600, 674, 682, 685

VCR	CODES
Sanyo	549, 581, 582, 583, 608, 675, 688
SBR	556
Schneider	589
Scott	508, 534, 559, 590, 684, 687
Sears	548, 549, 581, 584, 595, 608, 610, 676, 678, 680, 683, 684, 686, 687, 688
Sentra	546
Sharp	512, 585, 607, 625
Shintom	589, 595, 681, 685
Singer	678, 681, 685

## TV/VCR Combo

TV/VCR	TV Codes	VCR Codes
Broksonic	748	748
Goldstar	747	747
Panasonic	747	747
Quasar	747	747
Zenith	747	747

## DVD Player

DVD Players	Codes
Aiwa	634, 694, 751
Alpine	653
Apex	654, 655, 743, 744
Broksonic	656, 752
Clarion	696
Classic	695
Daewoo	657
Denon	697, 698, 699, 700
Emerson	658, 701
Fisher	659
Funai	658
GE	702, 703
Go Video	692, 693
GPX	704
Hitachi	632, 635, 660, 705, 706, 707
JVC	636, 689, 708, 711
Konka	637, 638, 753
Koss	745
Magnavox	626, 661
Memorex	709
Mintek	710
Mitsubishi	629
NAD	701

# Chapter 5

## Reference

DVD Players	Codes
Norcent	762
Onkyo	713
Oritron	723
Panasonic	639, 662, 663, 714, 715, 716, 717, 734
Philips	640, 641
Pioneer	665, 718, 719
Proscan	720
Qwestar	721, 723
RCA	627, 650, 666, 690, 742, 749
Sampo	724
Samsung	651, 652, 667, 668, 691, 740, 741
Sansui	725, 754
Sanyo	643, 726
Sharp	669, 727, 746
Sherwood	728
Sony	617, 644, 645, 670, 671, 729, 730, 731
Sylvania	658
Teac	732
Technics	733
Techwood	664
Toshiba	616, 646, 647, 672, 735, 736, 750,
Yamaha	737, 738, 739
Zenith	648, 673

### Tuner/Amplifier

Tuner/Amplifier	Codes
Aiwa	636, 641, 656, 687, 718, 720, 724, 775, 726
Carver	653
Citizen	709
Curtis Mathes	734
Denon	647, 674
Fisher	653, 741
GE	711
Goldstar	677, 690
Harmon/Kardon	640, 672, 751
Hitachi	717, 754
JBL	640
JVC	637, 683, 703, 725
Kenwood	649, 676, 691, 726, 728, 745
Luxman	752
Magnavox	654, 705, 740
Marantz	651, 740, 742, 743

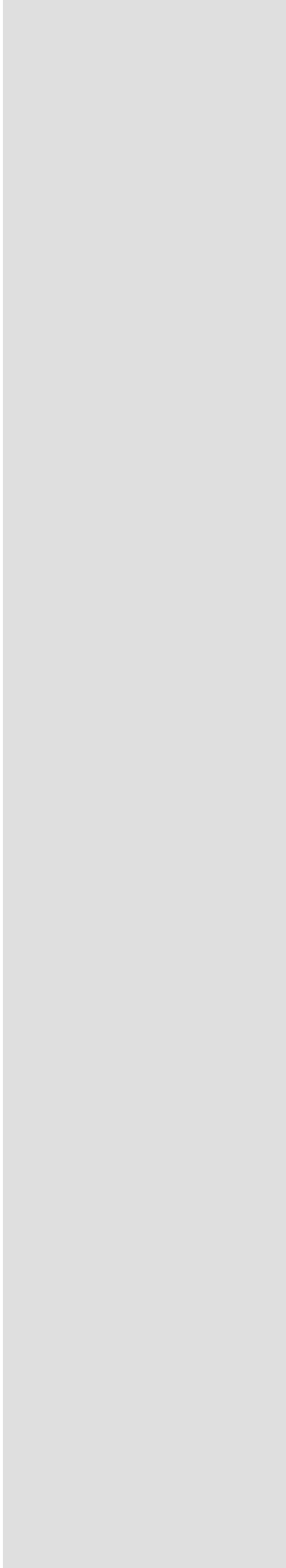
Tuner/Amplifier	Codes
NAD	739
Nakamichi	671, 748, 750
NEC	716, 739
Onkyo	642, 660, 662, 678
Optimus	648, 664, 734, 744, 749
Panasonic	643, 644, 652, 742, 746
Pioneer	658, 667, 668, 679, 702, 734
Proton	654, 705
Quasar	652, 742, 746
Radio Shack	744
RCA	635, 638, 704, 727
Sansui	753
Sanyo	741
Sharp	712, 713, 714, 715, 749
Sherwood	646, 670, 736, 738, 744
Sony	639, 645, 650, 687, 728, 729, 730
Teac	684, 737
Technics	643, 644, 652, 742, 746
Toshiba	710
Yamaha	663, 730, 731, 732, 733, 745, 747

### DVD/VCR Combo

DVD/VCR	Codes
Go Video	692, 693
JVC	689
RCA	690
Samsung	667, 691

### TV/DVD Combo

TV/DVD	TV Codes	DVD Codes
Aiwa	751	751
Broksonic	752	752
Konka	753	753
Panasonic	734	734
RCA	749	749
Sansui	754	754
Toshiba	750	750



**Notes**