

# 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](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 *Important System Information* menu to find these numbers (See *Ordering Your Programming* on page 4). Also, write down any error messages that the receiver displays on the television screen.

## Chapter 5

### Reference

### On-Screen Messages

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.

Message Number	Possible Reason	What to Do
001	<ul style="list-style-type: none"> <li>There may be a problem with the multi-dish switch.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
002	<ul style="list-style-type: none"> <li>Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal, or there may be other interference.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the <b>Point Dish/Signal</b> menu. Consult your installer to re-aim the dish, if necessary, to obtain the strongest possible signal.</li> </ul>
003, 004	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure the system uses RG6 coaxial cable; if not, call your dealer or installer.</li> <li>Check the dish-to-receiver cable run length; if it is over 200 feet, call your dealer or installer.</li> <li>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.</li> </ul>
005	<ul style="list-style-type: none"> <li>The receiver may not yet have been authorized 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.</li> </ul>	<ul style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>Check that the <b>Signal Strength</b> bar in the <b>Point Dish/Signal</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 for help.</li> </ul>
006	<ul style="list-style-type: none"> <li>The receiver may not be connected to an active telephone line.</li> <li>The credit limit may have been suspended.</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>Call the Customer Service Center for help checking the credit limit, and/or to get authorization to make a purchase.</li> </ul>
008	<ul style="list-style-type: none"> <li>Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.</li> </ul>	<ul style="list-style-type: none"> <li>Install a DSL filter between the receiver and the telephone wall jack. You can obtain the filter from your DSL provider.</li> </ul>
011, 012	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Remember that the program providers specify which programs are “blacked out” for which viewers, <i>not</i> DISH Network™.</li> </ul>

## Troubleshooting Tables

Message Number	Possible Reason	What to Do
013, 014	<ul style="list-style-type: none"> <li>You may have tried to tune to a program on a channel which you have not bought.</li> </ul>	<ul style="list-style-type: none"> <li>You <i>must</i> buy a channel <i>before</i> 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.</li> </ul>
015	<ul style="list-style-type: none"> <li>You may have just plugged in the receiver, and it is acquiring the satellite signal. Or, the receiver may have temporarily lost the signal.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Check that the <b>Signal Strength</b> bar in the <b>Point Dish/Signal</b> menu is green and displays the word <b>Locked</b>. If not, contact your installer to re-aim the satellite dish.</li> </ul>
018	<ul style="list-style-type: none"> <li>The receiver may not be connected to an active telephone line.</li> <li>The 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>Call the Customer Service Center for help checking the credit limit, and/or to get authorization to make a purchase.</li> </ul>
022	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>Check that the <b>Signal Strength</b> bar in the <b>Point Dish/Signal</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 for help.</li> </ul>
026	<ul style="list-style-type: none"> <li>The receiver may have temporarily lost the satellite signal.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Check that the <b>Signal Strength</b> bar in the <b>Point Dish/Signal</b> menu is green and displays the word <b>Locked</b>. If not, contact your installer to re-aim the satellite dish.</li> </ul>
028	<ul style="list-style-type: none"> <li>Pay Per View events cannot be purchased until the receiver has downloaded new software.</li> </ul>	<ul style="list-style-type: none"> <li>Turn the receiver off via the remote "Power" button and do not disturb for the next 15 minutes. To change channels, press the "Up" or "Down" arrow button on the remote or use the "Recall" button to return to the last viewed channel.</li> </ul>
032	<ul style="list-style-type: none"> <li>You may have tried to set a <i>VCR Event Timer</i> without having set up the receiver to control the VCR.</li> </ul>	<ul style="list-style-type: none"> <li>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>Using the System</i> for instructions.</li> </ul>
059	<ul style="list-style-type: none"> <li>You may have tried to close an installation menu without having done the <b>Check Switch</b> test.</li> </ul>	<ul style="list-style-type: none"> <li>If your setup includes a multi-dish switch, you <i>must</i> do the <b>Check Switch</b> test.</li> </ul>
060	<ul style="list-style-type: none"> <li>You may have aimed the satellite dish at one satellite, but selected the option for another satellite on the <b>Point Dish/Signal</b> menu.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure that you have selected the option for the right satellite on the <b>Point Dish/Signal</b> menu.</li> <li>Make sure that the cable(s) for the satellite you have selected are connected to the LNBF that receives signals from that satellite.</li> </ul>
061	<ul style="list-style-type: none"> <li>You may have set up the receiver to accept a transmission (a "download") of the latest operating software via the satellite signal.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>

## Chapter 5

### Reference

Message Number	Possible Reason	What to Do
074	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
078, 079, 080	<ul style="list-style-type: none"> <li>You may not have connected the receiver to an active telephone line. Or, the telephone line may be defective.</li> <li>Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Install a DSL filter between the receiver and the telephone wall jack.</li> </ul>
093	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>

### DISH Pro 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 LNBF. All entries show "X"s.	<ul style="list-style-type: none"> <li>The DISH Pro 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 DISH Pro Adapter installed on a DISH Pro receiver.</li> <li>May have a non-DISH Pro switch or LNBF 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 DISH Pro 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 DISH Pro Adapter; this device is only for non-DISH Pro receivers. Rerun check switch.</li> <li>Remove any non-DISH Pro switches/LNBs or incompatible accessory devices* from the system. All LNBs and switches must be DISH Pro. Rerun check switch.</li> </ul>
When you run Check Switch, you see "Twin" identified as the Device/LNBF and Satellite shows "Conn" but you do not see "Satellite Reception Verified".	<ul style="list-style-type: none"> <li>The DISH Pro 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 DISH Pro 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>
When you run Check Switch, you see "Satellite Reception Verified" but you see "Feed" instead of "Twin" identified as the Device/LNBF.	<ul style="list-style-type: none"> <li>The DISH Pro 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 DISH Pro 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 LNBF, but odd transponders are detected only on one satellite.	<ul style="list-style-type: none"> <li>You may have DISH Pro Adapter installed on a DISH Pro receiver.</li> <li>May have a non-DISH Pro switch or LNBF in the system</li> </ul>	<ul style="list-style-type: none"> <li>Remove the DISH Pro Adapter; this device is only for non-DISH Pro receivers. Rerun check switch.</li> <li>Remove any non-DISH Pro switches/LNBs from the system. All LNBs and switches must be DISH Pro. Rerun check switch.</li> </ul>

What's Happening	What's Wrong	What You Can Do
When you run Check Switch, you see "Twin" identified as the Device/LNBF but you only have signal confirmed from one satellite.	<ul style="list-style-type: none"> <li>The DISH Pro 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 repeak 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 repeak 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 LNBF, 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.

### Using the Remote Control

What Is Happening	Possible Reason	What to Do
You cannot find the remote control.	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<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 Service Center 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>You may be using the wrong remote control (1 or 2) for the menus (TV1 or TV2) you are trying to operate.</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 are placed according to the label diagram. If not, remove them and place correctly.</li> <li>Make sure you are using Remote Control 1 (2) to control TV1 (TV2) menus.</li> </ul>
When you press the remote control <b>Power</b> button to turn the receiver ON, the receiver front panel <b>Power</b> light does not light up.	<ul style="list-style-type: none"> <li>Other lights are too bright.</li> <li>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.</li> <li>The remote control(s) may not be set to the address(es) used by the satellite receiver.</li> <li>You may be using the wrong remote control (1 or 2) for the menus (TV1 or TV2) you are trying to operate.</li> </ul>	<ul style="list-style-type: none"> <li>Try other remote control buttons to see if the receiver is responding.</li> <li>Replace the remote 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.</li> <li>Make sure the remote control(s) are set to the same address(es) used by the satellite receiver. See page 34 for information on changing the remote control address.</li> <li>Make sure you are using Remote Control 1 (2) to control TV1 (TV2) menus.</li> </ul>

## Chapter 5

### Reference

What Is Happening	Possible Reason	What to Do
You use a pyramid type IR extender (not a "mouse tail"), and it does not seem to work.	<ul style="list-style-type: none"> <li>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.</li> <li>You are using Remote Control 2 which does not transmit IR signals.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>If doing the above does not solve the problem, contact the manufacturer of the extenders for assistance.</li> <li>Use a pyramid-type IR extender only with Remote Control 1 which uses IR signals.</li> </ul>

### Hearing A Program

What Is Happening	Possible Reason	What to Do
The receiver front panel <b>TV1</b> and <b>TV2</b> lights are 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> </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> </ul>
You hear a foreign language with a program.	<ul style="list-style-type: none"> <li>You may have set the receiver to an alternate audio 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>

### Using the Menus

What Is Happening	Possible Reason	What to Do
You were using a menu, and it suddenly closed.	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.	Start over again.

**Using Locks**

<b>What Is Happening</b>	<b>Possible Reason</b>	<b>What to Do</b>
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> </ul>	<ul style="list-style-type: none"> <li>You <i>must</i> lock the receiver to apply any lock that you have set.</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. You <i>must</i> provide account information to the Customer Service Representative. If you have set up a PIN, you will need to provide that, as well.</li> </ul>

**Watching A Program**

<b>What Is Happening</b>	<b>Possible Reason</b>	<b>What to Do</b>
The receiver front panel <b>TV1</b> and <b>TV2</b> lights are on, but the TV image: is black (no picture), is frozen, has break-ups, has "snow," or shows small squares of various colors.	<ul style="list-style-type: none"> <li>The TV set may not be working properly.</li> <li>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.</li> <li>The TV may not be on the correct channel.</li> <li>The TV may not be set to display from the correct input.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure that the TV set is plugged into an electrical outlet. Make sure the outlet has electrical power.</li> <li>Make sure that the TV is turned on.</li> <li>If the receiver is connected to the TV using only the CH 3-4 connections, make sure that the TV is tuned to channel 3 or 4 (whichever works best in your area) and that the receiver is set to the same channel as the TV using the <b>Modulator Setup</b> screen.</li> <li>If the TV is receiving the signal through the in-home cabling system from the CH 21-69 output on the receiver, make sure the TV is tuned to the same channel as indicated in the receiver <b>Modulator Setup</b> screen.</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. Make sure that the TV's text mode and closed captioned features are turned off.</li> <li>If the TV is connected to the receiver using the RCA-type or S-Video connections, make sure the TV is set up to display from the connected outputs.</li> <li>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.</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. 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> </ul>

## Chapter 5

### Reference

What Is Happening	Possible Reason	What to Do
The receiver front panel <b>Power</b> 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.	<ul style="list-style-type: none"> <li>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).</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. 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.</li> </ul>
A “black box” fills almost all of the TV screen.	<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>
The TV screen is all blue.	<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>

### 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 bought the program. You <i>must</i> buy 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> <li>Turn the receiver off for about ten minutes. This will allow the Program Guide to be updated.</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 details on past programs.</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 Favorite List other than the list named <b>All Chan</b>.</li> <li>You may have set up the locks to hide certain programming.</li> <li>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 Favorite List while using the <b>Program Guide</b>, by pressing the remote control <b>Guide</b> button repeatedly. You can choose another custom Favorite List, the <b>All Chan</b> list, which includes all of the channels, or the <b>All Sub</b> list, which includes all subscribed channels.</li> <li>Unlock the receiver for the <b>Program Guide</b> to display hidden channels.</li> <li>Do the <b>Check Switch</b> procedure (see the installation instructions for details).</li> </ul>

## Changing Channels

What Is Happening	Possible Reason	What to Do
You enter a desired channel number. The channel changes, but the new channel is not exactly the channel you entered.	<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. 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.</li> </ul>	<ul style="list-style-type: none"> <li>Carefully retry entering the channel number you want. Press the remote control <b>RECALL</b> button to return to the previous channel number.</li> </ul>
You are scanning up or down through the channels, and the receiver is skipping channels that you know you have bought.	<ul style="list-style-type: none"> <li>If a Favorite 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 locks to hide adult channels and the receiver is locked, the receiver will skip such channels.</li> </ul>	<ul style="list-style-type: none"> <li>Select <b>All Chan</b> as the active Favorite List by pressing the <b>GUIDE</b> button repeatedly. Unlock the receiver so that it does not skip adult channels.</li> <li>If you want to buy a channel, call the Customer Service Center.</li> </ul>

## 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 Favorite 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 Favorite 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> only change the <b>All Sub</b> list by changing what channels you buy.</li> </ul>
You try to apply an empty Favorite 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 Favorite 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 locks to hide adult channels and the receiver is locked, the Favorite 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>

## 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>

## Chapter 5

### Reference

What Is Happening	Possible Reason	What to Do
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 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 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>

### Using the Telephone for Voice/Data/FAX

What Is Happening	Possible Reason	What to Do
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>
The receiver cannot connect to DISH Network.	<ul style="list-style-type: none"> <li>Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.</li> </ul>	<ul style="list-style-type: none"> <li>Install a DSL filter between the receiver and the telephone wall jack.</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 mode 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>

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>, or a <i>VCR 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 channel of the program. A <i>VCR Event Timer</i> reminds you, tunes the receiver, and starts the VCR.</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. 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. Try another VCR code from the <b>VCR Codes</b> table.</li> </ul>

## Chapter 5

### Reference

#### Using DVR Features

What's Happening	What's Wrong	What You Can Do
You find you can't watch part of a program you're auto recording.	<ul style="list-style-type: none"> <li>If the receiver runs out of room to auto record a program, it starts to erase the oldest part of the program to make room for new audio and video.</li> <li>When you change the channel, you erase what's stored in auto recording.</li> <li>You <i>can't</i> watch part of a "live" program that hasn't been broadcast yet, because the receiver hasn't recorded it yet.</li> </ul>	<ul style="list-style-type: none"> <li>To make sure you can watch all of a program, on-demand record it instead of auto recording it.</li> <li>If you want to be able to watch all of a program you're auto recording, don't change the channel. You can only auto record for about one hour.</li> </ul>
You find the receiver didn't on-demand record a program.	<ul style="list-style-type: none"> <li>Maybe you didn't press the remote control <b>RECORD</b> button while you watched the program or set an <i>Event Timer</i> to record it.</li> <li>Maybe the receiver ran out of room to on-demand record the program.</li> <li>You may have had a signal outage caused by bad weather during the recording.</li> </ul>	<ul style="list-style-type: none"> <li>To on-demand record a program, you <i>must</i> either press the remote control <b>RECORD</b> button <i>or</i> set an <i>Event Timer</i>. If you set an <i>Event Timer</i> to record the program, maybe the <i>Event Timer</i> was not set up right. See the <i>Event Timers</i> table for help.</li> <li>Check the "time Left" on the <b>DishDVR Recorded Events</b> menu. If you "protect" many recorded programs, the receiver may not have enough room to record any new programs.</li> </ul>
You find the receiver is missing programs you recorded.	If you don't "protect" a recorded program, and the receiver needs room to record a new program, it may record over that recorded program to have room.	Use the <b>DishDVR Recorded Events</b> menu to "protect" an on-demand recorded program. This means the receiver will ask you before it records over that recorded program. But note, if you "protect" many recorded programs, the receiver may not have enough room to record any new programs.
When you open a recorded program's info menu, some of the options seem to be missing.	You see menu options <i>only</i> when they work. <i>For example</i> , the <b>Start</b> option doesn't show up unless you select a recorded program.	You can use <i>only</i> the options you see on the menu. You won't see all the options at once. You'll never see a "Record" option; to record a program you <i>must either</i> press the remote control <b>RECORD</b> button or set an <i>Event Timer</i> .
On-demand recording stores only one program, or only part of one program.	On-demand recording works by program unless you set a manual event timer to start and stop the recording at the times you set yourself.	To record more than one program, or to record parts of one or more programs, set a manual event timer.

## Device Codes

These tables contain the manufacturer codes for programming the remote to control your TV, a 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 Codes

TV	Code
A Mark	670
Action	662
Admiral	514, 521, 605, 668, 669, 675
Aiko	727
Akai	570, 573, 659, 660
A-Mark	620
Amtron	657
Anam	509, 541, 620, 661
Anam National	651, 657, 663, 698
AOC	505, 506, 519, 520, 573, 620, 627, 652, 653, 654, 659, 664, 665, 670, 672
Archer	620
Audiovox	620, 657, 662, 672
Bell & Howell	590, 669, 675
Broksonic	562, 659, 661
Capehart	519, 627
Citizen	506, 516, 523, 524, 525, 526, 590, 652, 654, 657, 658, 680, 727
Classic	659
Colortyme	573, 627, 652, 654, 660, 667, 668, 671, 674, 679, 681
Contec	541
Contec Cony	661, 662
Contec/Cony	655, 657, 726
Craig	536, 541, 657, 661, 662, 666, 667, 694
Crown	526, 536, 657, 666, 670
Curtis	659, 674
Curtis Mathes	506, 516, 526, 573, 590, 650, 652, 654, 658, 660, 664, 665, 667, 668, 670, 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

TV	Code
Daytron	526, 627, 652, 654, 658, 665, 670, 672
Dimensia	650
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, 652, 654, 655, 657, 658, 659, 660, 661, 662, 665, 666, 667, 669, 670
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, 650, 651, 652, 654, 659, 661, 663, 665, 667, 668, 670, 673, 676, 681, 690, 691, 698, 701, 715, 716
Goldstar	505, 523, 526, 545, 546, 566, 573, 652, 653, 654, 655, 656, 658, 659, 660, 664, 665, 670, 671, 678, 693, 730
Gradiente	660, 671
Granada	627, 670, 671
Grundig	670, 673
Hallmark	627, 652, 654, 659
Harman Kardon	659
Harman/Kardon	561
Hinari	534
Hitachi	523, 526, 548, 549, 553, 554, 555, 585, 597, 626, 652, 654, 655, 665, 668, 669, 670, 672, 673, 702, 718, 726
Infinity	066, 671
JBL	566, 671

TV	Code
JC Penney	505, 506, 516, 525, 526, 543, 546, 631, 650, 652, 653, 654, 658, 659, 664, 667, 668, 670, 673, 676, 678, 680, 690, 691, 725
JCPenney	701
Jensen	556, 573, 652, 654, 660
JVC	508, 557, 559, 655, 667, 673, 676, 726
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
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, 617, 631, 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	573

# Chapter 5

## Reference

TV	Code
Mitsubishi	504, 505, 542, 570, 571, 572, 597, 623, 627, 652, 653, 654, 656, 659, 660, 664, 665, 670, 671, 705, 728
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, 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
Optonica	521, 605, 607
Orion	694
Osaki	612
Panasonic	508, 509, 510, 512, 566, 651, 662, 663, 668, 672, 673, 676, 685, 689, 698, 700, 716
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
Philips	525, 566, 651, 652, 655, 656, 671, 690, 723, 724, 729
Pioneer	502, 548, 576, 652, 654, 663, 665, 681, 708
Portland	505, 526, 573, 652, 654, 658, 659, 664, 665, 670, 727
Price Club	680
Prism	676
Proscan	650, 668, 691, 725
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
Radio Shack	526, 541, 607, 612, 661, 662, 663, 668, 670, 698

TV	Code
Radio Shack/Realistic	590, 607, 650, 652, 654, 655, 657, 658, 683, 730
RCA	503, 505, 548, 586, 630, 633, 634, 650, 651, 652, 653, 654, 656, 661, 663, 665, 667, 668, 670, 681, 691, 698, 701, 708, 715
Realistic	590
Runco	501
Sampo	506, 519, 652, 654, 658, 663, 664, 665, 698, 730
Samsung	505, 506, 516, 523, 526, 566, 573, 612, 627, 652, 653, 654, 655, 656, 658, 659, 664, 665, 667, 669, 670, 679, 680, 704, 717
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, 650, 652, 654, 656, 659, 661, 668, 670, 682, 683, 688, 691, 703, 725
Sharp	521, 526, 585, 605, 607, 628, 629, 652, 654, 655, 658, 669, 670, 674, 679
Signature	675
Solavox	612
Sony	500, 578, 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	Code
Teknika	504, 505, 512, 516, 523, 524, 525, 526, 534, 536, 541, 573, 652, 653, 654, 655, 657, 658, 661, 662, 664, 665, 666, 670, 672
Telefunken	679
Toshiba	516, 590, 617, 631, 667, 678, 680, 683, 688
Totevision	526, 658, 668
Ultra	672
Universal	543, 690
Vector Research	506
Video Concepts	570, 661
Wards	536, 573, 607, 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,
Zenith	501, 652, 672, 675, 693

## VCR Codes

VCR	Code
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
Goodmans	585, 589
Gradiente	588, 687

VCR	Code
Granada	549, 581
Grundig	556
Harman Kardon	568, 592
Harwood	181
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
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

VCR	Code
Panasonic	523, 554, 598, 614, 628, 633, 678, 679, 684, 685, 688
Pentax	592, 595, 677, 680, 683, 686
Pentex 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
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
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
Sony	500, 501, 502, 504
STS	678
Sylvania	554, 556, 567, 588, 678, 679
Symphonic	588, 594, 683, 688
Tandy	581, 588

VCR	Code
Tashiko	588, 676
Tatung	594, 682
Teac	588, 594, 682
Technics	554, 633, 678
Teknika	554, 588, 676, 678, 687
Toshiba	534, 535, 567, 584, 590, 680, 684, 688
Totevision	591, 675, 676, 687
Unitech	675
Vector Research	534, 592, 600, 674, 677, 683
Video Concepts	534, 568, 592, 600, 674, 677, 683
Wards	534, 588, 595, 608, 675, 676, 678, 680, 681, 684, 687, 688
XR-1000	588, 678, 681
Yamaha	581, 592, 594, 600, 674, 682, 683
Zenith	500, 501, 533

### TV/VCR Combo

TV/VCR Combo	Code
Action	640
Broksonic	642
Daewoo	636
Emerson	642, 643
GE	637
Goldstar	638
Panasonic	638
Precision	640
Quasar	638
Realistic	641
Sony	639
Toshiba	635
Zenith	638

### DVD Player Codes

DVD	Code
Aiwa	634
Alpine	653
Apex	654, 655
Broksonic	656
Daewoo	657
Emerson	658
Fisher	659
Funai	658

## Chapter 5

### Reference

DVD	Code
Hitachi	632, 635, 660
JVC	636
Konka	637, 638
Magnavox	626, 661
Mitsubishi	629
Panasonic	639, 662, 663
Philips	640, 641
Pioneer	665
RCA	627, 650, 666
Samsung	651, 652, 668
Sanyo	643
Sharp	669
Sony	617, 644, 645, 670, 671
Sylvania	658
Toshiba	616, 646, 647, 672
Zenith	648, 673

### TV/DVD Combo

TV/DVD Combo	Code
Aiwa	644
Broksonic	645
Konka	646
RCA	647
Sansui	648
Toshiba	649

### Tuner/Amplifier Codes

Audio	Code
Aiwa	656, 687, 718, 720, 724, 725, 726
Carver	653
Citizen	709
Curtis Mathes	734
Denon	674
Fisher	653, 741
GE	711
Goldstar	677, 690
Harmon Kardon	672
Hitachi	717
JVC	683, 703, 725
Kenwood	676, 691, 726, 728, 745
Magnavox	654, 705, 740
Marantz	651, 740, 742, 743
NAD	739

### VCR/DVD Combo

DVD/VCR Combo	Code
Go Video	692
JVC	689
RCA	690
Samsung	667, 691