

Chapter 5

Reference

USE THE TROUBLESHOOTING TABLES

You can often *save yourself time* if you troubleshoot the system *before* you call the Customer Service Center!

1. ***If the receiver displays an Error message on the TV screen***, see the *On-Screen Messages* table on page 112. Also, check the cables and make sure their connections are tight. ***If the receiver doesn't display an Error message***, go on to step 2.
2. ***Here's a simple fix for many problems: Press and hold*** the receiver's front panel POWER button for about five seconds, or until the POWER and RECORDING lights turn on, and then let go of the button. The TV screen will go blank for a few seconds, display a message that the receiver is acquiring the satellite signal, and then the picture will return.
3. Tune to the DISH Network info channels or see our www.dishnetwork.com Web site for tips.
4. Use the troubleshooting tables starting on the next page. In *any* troubleshooting table, here's what to do:
 - a.) Look under *What's Happening* until you find the problem.
 - b.) To understand the problem, look under *What's Wrong*.
 - c.) Try each of the tips under *What You Can Do*.
5. Review this *User Guide* for help.
6. For more help, call the Customer Service Center at 1-800-333-DISH (3474).

You can often *save yourself time* if you troubleshoot the system *before* you call the Customer Service Center!

Here's a simple fix for many problems!

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CHANNEL CHANGES

What's Happening	What's Wrong	What You Can Do
You enter a channel number you want. The channel changes, but the new channel isn't exactly the channel you entered.	<ul style="list-style-type: none"> Maybe you made a mistake when you entered the channel number, or maybe the channel number you entered doesn't work. If so, the receiver tunes to the channel closest to the channel you entered. If you entered the number for a channel you haven't bought, the receiver tunes to the channel and gives you the choice to buy it. 	<ul style="list-style-type: none"> Carefully enter the channel number you want again. Press the remote control RECALL button to go back to the previous channel number. To buy a channel, call the Customer Service Center at 1-800-333-DISH (3474).
You're scanning up or down through the channels, and the receiver skips channels you know you bought.	<ul style="list-style-type: none"> If you apply a Favorites List that's not All Chan, the receiver skips channels that aren't on the applied list. If you hide adult channels and lock the receiver, the receiver skips adult channels. 	<ul style="list-style-type: none"> Press GUIDE until All Chan is the active Favorites List. Unlock the receiver so it doesn't skip adult channels.
The receiver changes channels by itself.	<ul style="list-style-type: none"> Stray UHF signals from a nearby neighbor are interfering with your receiver. 	<ul style="list-style-type: none"> Install a 10 dB attenuator as described in <i>Attach an Attenuator</i>.

DISHDVR 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"> 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. When you change the channel, you erase what's stored in auto recording. 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. 	<ul style="list-style-type: none"> To make sure you can watch all of a program, on-demand record it instead of auto recording it. 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.
You find the receiver didn't on-demand record a program.	<ul style="list-style-type: none"> Maybe you didn't press the remote control RECORD button while you watched the program or set an <i>Event Timer</i> to record it. Maybe the receiver ran out of room to on-demand record the program. You may have had a signal outage caused by bad weather during the recording. 	<ul style="list-style-type: none"> To on-demand record a program, you <i>must</i> either press the remote control RECORD 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. Check the "time Left" on the DishDVR Recorded Events menu. If you "protect" many recorded programs, the receiver may not have enough room to record any new programs.
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 DishDVR Recorded Events 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. For example, the Start 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 RECORD 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.

DOLBY DIGITAL SOUND

What's Happening	What's Wrong	What You Can Do
Instead of Dolby® Digital sound, you hear only regular stereo or non-stereo sound.	<ul style="list-style-type: none"> • Maybe the program you're watching doesn't have Dolby Digital sound. • Maybe you selected the wrong sound option on the Dolby Digital Setup menu. • Maybe the amplifier/decoder can't process Dolby Digital sound. • Maybe you didn't connect the receiver to an amplifier/decoder. 	<ul style="list-style-type: none"> • Not all programs have Dolby Digital sound. Check the program's Program Guide entry for the (DD) mark. • On the Dolby Digital Setup menu, select the Dolby Digital Only option if the amplifier/decoder can process <i>only</i> Dolby Digital signals, the PCM Only option if the amplifier can't process Dolby Digital, and the Dolby Digital/PCM option <i>only</i> if the amplifier can process <i>both</i> regular and Dolby Digital sound. Note: If you select the Dolby Digital/PCM option and the amplifier/decoder can't process Dolby Digital, you could damage the speakers. • If the amplifier/decoder can't process Dolby Digital, it won't provide Dolby Digital sound. See the amplifier user's manual or call your audio electronics dealer for more info. • Make sure you connect an amplifier/decoder that can process Dolby Digital sound to the receiver's back panel DOLBY DIGITAL output.

EVENT TIMERS

What's Happening	What's Wrong	What You Can Do
You want to use Quick Record, but the receiver displays the Create an Event Timer menu.	You highlighted a future program in the Browse Banner , in the Program Guide , or in a Themes list, and then pressed the SELECT button.	To use <i>Quick Record</i> , highlight a future program but <i>don't</i> press the SELECT button. <i>Instead</i> , press the RECORD button. Note: You can use the Create an Event Timer menu if you want, because it's almost as fast as <i>Quick Record</i> .
You try to set an event timer and the receiver displays a message that the program is locked.	You <i>must</i> enter the password <i>before</i> you can set an event timer for a locked program.	First enter the password, then you can set an event timer for the program.
You try to set an event timer and the receiver displays a message that the program is a pay per view event.	You <i>must</i> order a pay per view event <i>before</i> you can set an event timer for it.	First order the event, then you can set an event timer for it.
You try to set an event timer, but the receiver displays an Error message that gives you the choice to delete an event timer you set earlier.	You've already set as many event timers as you can.	Delete one of the event timers you set earlier, and then you can set a new event timer.
You set an event timer, but the receiver doesn't tune to the channel of the program, or doesn't record the program.	Maybe you set a <i>Reminder Event Timer</i> but you should have set a <i>DVR Event Timer</i> , an <i>Auto-Tune Event Timer</i> , or a <i>VCR Event Timer</i> .	Remember, a <i>Reminder Event Timer</i> just reminds you 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 to record. A <i>DVR Event Timer</i> reminds you, tunes the receiver, and starts the receiver to record with the DishDVR features. Note: The receiver <i>won't</i> turn the VCR on, so you <i>must</i> leave it turned on. Note: A <i>DVR Event Timer</i> can work <i>only</i> if the receiver has enough room to record. See the <i>DishDVR Features</i> table for help.

EVENT TIMERS

What's Happening	What's Wrong	What You Can Do
<p>You set an event timer for a program that comes on each day or each week, but the timer is either recording the wrong program or sometimes misses programs.</p>	<ul style="list-style-type: none"> • Maybe you set the timer with the wrong frequency. • Maybe the network changed the program time. 	<p>Remember, a <i>Once</i> event timer works just one time for one program, at the program's actual time. A <i>Mon-Fri</i> event timer works Monday through Friday on the same channel at the same time, not keyed to any program. A <i>Daily</i> event timer does the same, Monday through Sunday. A <i>Weekly</i> event timer works once a week on the same channel at the same time, not keyed to any program.</p>
<p>You set an event timer, but the timer doesn't work at all.</p>	<p>Maybe the program time changed so the event timer overlapped another event timer.</p>	<p>If the receiver is on and finds an event timer overlap, it displays the Event Timer Scheduling Conflict menu. You <i>must</i> edit or delete one of the overlapping event timers.</p>
<p>You set a <i>Once</i> event timer, but the timer doesn't work at the time you expect.</p>	<p>The program time changed.</p>	<p>A <i>Once</i> event timer always works at the program's actual time.</p>
<p>You stop an event timer for one showing of a program that comes on each day or each week, but the timer works for the next showing.</p>	<p>When you stop a repeated event timer, this applies <i>only</i> to the timer's action right then.</p>	<p>To stop all actions of a repeated event timer, you <i>must</i> delete the event timer. Note: The receiver deletes a <i>Once</i> event timer right after it works.</p>
<p>You test a VCR code to see if the receiver controls a VCR. The VCR doesn't do the test.</p>	<ul style="list-style-type: none"> • Maybe you didn't turn on the VCR, maybe you didn't put a tape in, maybe you didn't rewind the tape, or maybe you took the write-protect tab off the tape. • Maybe the code you're testing doesn't work for the VCR. 	<ul style="list-style-type: none"> • Make sure you turn on the VCR and put a rewind tape in. Make sure the write-protect tab is on the tape so that recording is permitted. • Try another VCR code from the table.

EVENT TIMERS

What's Happening	What's Wrong	What You Can Do
<p>You set a <i>VCR Event Timer</i>, but the VCR doesn't record the program you want.</p>	<ul style="list-style-type: none"> • Maybe you didn't turn on the VCR, or put a rewind tape in, or maybe you took the write-protect tab off the tape. • If you use the receiver back panel TV Set Out ports in the wiring setup, maybe you didn't set the receiver channel 3/4 setting and both the VCR modulator output and viewing channel to either 3 or 4. • Maybe something blocks the signal path between the receiver and the VCR. • If you set the <i>VCR Event Timer</i> with the Create an Event Timer menu, maybe you selected an <i>Auto-Tune</i>, <i>Reminder</i>, or <i>DishDVR</i> timer instead of a <i>VCR</i> timer. • If you did select a <i>VCR</i> timer, maybe you selected the wrong timer frequency. • If you set the <i>VCR Event Timer</i> with <i>Quick Record</i>, the timer was one-time only, and missed another showing of the program. 	<ul style="list-style-type: none"> • Make sure you turn on the VCR and put a rewind tape in. Make sure the write-protect tab is on the tape. • If you use the TV Set Out 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. • Remove anything that blocks the signal path between the receiver and the VCR. • When you set a <i>VCR Event Timer</i>, make sure to select the <i>VCR</i> option in the Timer Type list on the Create an Event Timer menu. Also, make sure to select the right option in the Timer Frequency list on this menu. • Remember, with <i>Quick Record</i> you can set <i>only a Once</i> (one-time only) timer.
<p>You edit an <i>automatic</i> event timer. The timer doesn't start or doesn't end with a program's start and stop times.</p>	<p>When you edit an <i>automatic</i> event timer, you <i>change</i> it to a <i>manual</i> event timer. A manual timer starts and stops at the times you set, <i>not</i> the start and stop times of any program.</p>	<p>If you want an <i>automatic</i> event timer to start and stop with a program's start and stop times, don't edit the event timer.</p>
<p>You try to set a <i>manual</i> event timer. The receiver displays an Error message.</p>	<p>Maybe you tried to set a <i>manual</i> event timer for a pay per view program or with start or stop times that don't work.</p>	<p>Remember, you <i>can't</i> set a <i>manual</i> event timer for a pay per view program. Also, you <i>must</i> set the end time <i>after</i> the start time, <i>and</i> at least one minute later than the start time.</p>
<p>The receiver doesn't display the program name for a <i>manual</i> event timer.</p>	<p>Maybe the receiver can't display a program name for a <i>manual</i> event timer.</p>	<p>Use the Program Guide or a printed list to find the program name.</p>
<p>You set an event timer. The event timer misses the beginning or the end of a program.</p>	<p>Maybe the program started a little earlier than it was supposed to, or maybe it ran over the time it was supposed to end.</p>	<ul style="list-style-type: none"> • Use the Start 1 min. early option to start <i>any</i> event timer (<i>except</i> for a pay per view event) one minute early. • Use a <i>manual</i> event timer to start <i>any</i> event timer (<i>except</i> for a pay per view event) at the times <i>you</i> set.

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FAVORITE LISTS

What's Happening	What's Wrong	What You Can Do
You press the remote GUIDE button while you've got the Program Guide open. You find you can apply <i>only</i> the All Chan list or the All Sub list.	If you don't add channels to any custom Favorite List, you can apply <i>only</i> the All Chan list or the All Sub list.	You <i>must</i> add channels to a custom Favorite List <i>before</i> you can apply it.
You try to change the All Chan list or the All Sub list. The receiver displays an Error message.	You <i>can't</i> change the All Chan list or the All Sub list.	Choose another list to change. Note: You <i>can</i> change the All Sub list by buying channels. To buy a channel, call the Customer Service Center at 1-800-333-DISH (3474).
You try to apply an empty Favorite List. The receiver displays an Error message.	You <i>can't</i> apply an empty list.	Choose another list to apply, or add at least one channel to the empty list.
A Favorite List doesn't show channels you know you added to it.	If you hide adult channels and lock the receiver, no Favorite List shows adult channels.	Unlock the receiver for the list to show adult channels.

LOCKS

What's Happening	What's Wrong	What You Can Do
You set a lock (<i>for example</i> , a lock on programs by ratings), but the lock doesn't work.	Maybe you didn't lock the receiver.	You <i>must</i> lock the receiver to apply any lock you set (<i>that is</i> , to make it work).
You forgot the password, so you can't unlock the receiver.	Maybe you didn't write down the password and keep it in a safe place.	Call the Customer Service Center at 1-800-333-DISH (3474). You <i>must</i> give us your name, your address, your telephone number, the receiver serial number (open the Important System Information menu to get it), and your PIN, if you use one.

MENUS

What's Happening	What's Wrong	What You Can Do
You're using a menu, and it suddenly closes.	The receiver "times out," and closes any menu after several minutes with no action. This throws away any changes you make, but the receiver is still okay.	Start over again.
A menu option is "grayed out," and you can't select it.	The option is for a feature that may come with a future software upgrade.	Ignore the option.
In the Program Guide , a channel has a red background.	<ul style="list-style-type: none"> • Maybe you haven't bought the channel. You <i>must</i> buy a channel <i>before</i> you can tune the receiver to it. • Maybe you've exceeded your event limit. • Maybe there's a problem with the channel's broadcast. 	<ul style="list-style-type: none"> • To buy a channel, call the Customer Service Center at 1-800-333-DISH (3474). • Review your pay per view purchases to check your event limit. If you've exceeded the limit, call the Customer Service Center. • Try to tune to the channel later.
The Program Guide doesn't show a picture in the upper right-hand corner.	<ul style="list-style-type: none"> • Maybe you haven't set up the <i>Program Guide</i> to show the last channel you watched in the upper right-hand corner. • Maybe you just opened the <i>Program Guide</i>, or just changed the channel. 	<ul style="list-style-type: none"> • Set up the <i>Program Guide</i> to show the last channel you watched in the upper right-hand corner. • When you first open the <i>Program Guide</i> or when you change the channel, there may be a <i>brief</i> delay before a picture shows up.
You try to display future programs in the Program Guide or Browse Banner , but find you can't.	The Program Guide and Browse Banner can display programs that'll come on for some time into the future, but not forever.	Check the Program Guide again later. By then, it may show programs for the time and date you want.
You try to display programs that have ended in the Program Guide or Browse Banner , but find you can't.	The Program Guide and Browse Banner can display <i>only</i> programs that haven't yet ended. These features <i>can't</i> display a time before now.	Call the program providers for details on past programs.
When you use the Program Guide or Browse Banner , some channels seem to be missing.	<ul style="list-style-type: none"> • Maybe you applied a Favorite List that's not the All Chan list. • Maybe you hid adult channels and locked the receiver. • If your setup includes a multi-dish switch, maybe you need to do the Check Switch procedure. 	<ul style="list-style-type: none"> • You can change the applied Favorite List while you use the Program Guide - just press the remote control Guide button. You can choose another custom Favorite List, the All Chan list (it includes all the channels), or the All Sub list (it includes all the channels you've bought). • Unlock the receiver to let the Program Guide show adult channels. • Do the Check Switch procedure (see the installation instructions for what to do).

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ON-SCREEN MESSAGES

Note: Here we list on-screen messages in *message number* order. Just find the message number in the upper right-hand corner of the message, and then find the same number on the Left-hand side of this table.

Message Number	What's Wrong	What You Can Do
001	Maybe there's a problem with the multi-dish switch.	<ul style="list-style-type: none"> • Check the cables and their connections to and from the multi-dish switch. • Make sure all the cables are in place, and their connections are tight. • If this doesn't work, call the Customer Service Center for help.
002	<ul style="list-style-type: none"> • Heavy rain, snow, or cloud cover can interfere with the satellite signal. • Maybe there's other interference. 	<ul style="list-style-type: none"> • Check the local weather. Brush any snow, leaves, <i>etc.</i> off the satellite dish. • Make sure 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 you aim the satellite dish at the satellite. Check the strength of the signal with the Point Dish/Signal menu. • If this doesn't work, call the Customer Service Center for help.
003, 004	<ul style="list-style-type: none"> • Maybe your system uses the wrong kind of cable, or maybe the cable run is too long. • Maybe there's a problem with the multi-dish switch. 	<ul style="list-style-type: none"> • Make sure your system uses RG6 cable. • See <i>Chapter 4, Installation Instructions</i> for the proper cable length for your system. • Check the cables and their connections to the multi-dish switch. Make sure all the cables are in place, and their connections are tight. • If this doesn't work, do the Check Switch test. See the installation instructions for what to do. • If this doesn't work, call the Customer Service Center for help.
005	Maybe we haven't yet linked the receiver with the Smart Card, via the satellite signal.	<ul style="list-style-type: none"> • If you've called the Customer Service Center to order your program packages, wait a few minutes to see if the message goes away. If it doesn't go away, call the Customer Service center. • Try resetting the receiver using the front panel POWER button. • If you <i>haven't</i> called the Customer Service Center to order your program packages, do so.
006, 007, 008	<ul style="list-style-type: none"> • Maybe you haven't connected the receiver to an active telephone line. • Maybe you've gone over the Smart Card credit limit. • Maybe the receiver is connected to a DSL (digital Subscriber Line) phone line. 	<ul style="list-style-type: none"> • You <i>must</i> connect the receiver to a phone line at <i>all</i> times. If you install two or more receivers, do this for <i>each</i> receiver. • Review what you've bought with pay per view to check the Smart Card credit limit. If you've gone over the limit, call the Customer Service Center. • If this doesn't work, call the Customer Service Center for help. • Install a DSL filter between the receiver and the telephone wall jack.
011, 012	In some areas you <i>can't</i> watch some programs. <i>For example</i> , if you live close to a football stadium you can't watch football games played there.	<ul style="list-style-type: none"> • Remember, the program providers decide which programs they "black out," <i>not</i> DISH Network.
013, 014	Maybe you tried to tune to a program on a channel you haven't bought.	<p>You <i>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 a channel, or if you think the receiver displayed this message by mistake.</p> <p>Wait until bad weather conditions have cleared so that your receiver can get the authorization from the satellite.</p>

Message Number	What's Wrong	What You Can Do
015	<ul style="list-style-type: none"> Maybe you just plugged in the receiver, and it's acquiring the satellite signal. Maybe the receiver briefly lost the signal. 	<ul style="list-style-type: none"> Wait a few minutes to see if the message goes away. Make sure all the cables are in place, and their connections are tight. Make sure 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 the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked.
018	<ul style="list-style-type: none"> Maybe you haven't connected the receiver to a phone line. Maybe you've gone over the Smart Card credit limit. 	<ul style="list-style-type: none"> You <i>must</i> connect the receiver to a phone line at all times. If you install two or more receivers, do this for <i>each</i> receiver. Review what you've bought with pay per view to check the Smart Card credit limit. If you've gone over the limit, call the Customer Service Center. Call the Customer Service Center (at 1-800-333-DISH [3474]) to have us set you up to buy a pay per view program.
019	Maybe you put the Smart Card in up side down or backwards.	<ul style="list-style-type: none"> Make sure you put the Smart Card in right side up, with the picture on top and the arrow facing into the receiver's front panel slot. If this doesn't work, call the Customer Service Center for help.
020	The receiver works <i>only</i> with the Smart Card that we linked to it via the satellite signal.	<ul style="list-style-type: none"> Put the right Smart Card into the receiver's front panel slot. Call the Customer Service Center for help.
021	Maybe the Smart Card is missing or you didn't put it in the right way.	Make sure you put the Smart Card all the way into the receiver's front panel slot.
022	<ul style="list-style-type: none"> Maybe we haven't yet linked the receiver with the Smart Card, via the satellite signal. Maybe the satellite dish has moved so it's not getting the satellite signal. Maybe the cable connections are loose. Maybe the satellite signal has been interrupted. 	<ul style="list-style-type: none"> If you've called the Customer Service Center to order your program packages, wait a few minutes to see if the message goes away. If it doesn't go away, call the Customer Service center. If you <i>haven't</i> called the Customer Service Center to order your program packages, do so. Make sure all the cables are in place, and their connections are tight. Make sure 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 the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked.
025, 026	Maybe the receiver briefly lost the satellite signal. <i>For example</i> , around the start of spring and again around the start of autumn, the sun is right behind the satellite. When this happens, sunlight overpowers the satellite signal for just a few minutes. This happens to all satellite television providers. Once the sun isn't behind the satellite, the receiver will get the signal again.	<ul style="list-style-type: none"> Wait a few minutes to see if the message goes away. Make sure all the cables are in place, and their connections are tight. Make sure 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 the Signal Strength bar in the Point Dish/Signal menu is green and displays the word Locked.
028	Maybe the receiver needs to get new software before you can use it to order pay per view programs.	Turn the receiver off. Doing this lets the receiver get new software via the satellite signal. This may take several minutes; <i>don't</i> disturb or unplug the receiver while it gets the upgrade. When the upgrade is done, you'll be able to use the receiver to order pay per view programs.
032	Maybe you tried to set a <i>VCR Event Timer</i> but didn't 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 <i>Control a VCR</i> in <i>Chapter 2 - How to Use the System</i> for what to do.
059	Maybe you tried to close an installation menu without doing the Check Switch test.	If your setup includes a multi-dish switch, you <i>must</i> do the Check Switch test.
060	Maybe you aimed the satellite dish at one satellite, but selected another satellite's option on the Point Dish/Signal menu.	<ul style="list-style-type: none"> Make sure you select the option for the right satellite on the Point Dish/Signal menu. Make sure you connect the cable(s) for the satellite you select to the LNBF that gets signals from that satellite. Re-aim the satellite dish at the right satellite.

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Message Number	What's Wrong	What You Can Do
061	You set up the receiver to get an upgrade of the latest software via the satellite signal.	It's <i>very</i> important for the receiver to get the latest software, so let it. This may take several minutes. <i>Don't</i> disturb or unplug the receiver while it gets the upgrade.
074	The receiver gives you three chances to enter the right password. If you can't, the receiver "times out" and won't allow you to try again for several minutes.	Wait a few minutes and then try again to enter the password. Note: The "time out" feature keeps someone from trying password after password until he or she happens to guess the right one and gets into the receiver.
078, 079, 080	<ul style="list-style-type: none"> • Maybe you haven't connected the receiver to a phone line. • Maybe the phone line doesn't work. • Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line. 	<ul style="list-style-type: none"> • Connect the receiver to a phone line. • Make sure the receiver's phone line works right. Note: To order pay per view programs, you <i>must</i> keep the receiver connected to a phone line at <i>all</i> times. If your setup includes more than one receiver, do this for <i>each</i> receiver. The receiver uses the phone line to make toll-free calls, usually in the middle of the night, to send info to the Customer Service Center. Install a DSL filter between the receiver and the telephone wall jack.
083	<ul style="list-style-type: none"> • You have a DSL (Digital Subscriber Line) telephone line which is interfering with the modem. • The phone line is not connected. • A phone jack splitter, caller ID device, or some other device is between the receiver and the phone jack. 	<ul style="list-style-type: none"> • Install a DSL filter between the receiver and the telephone wall jack. • Make sure the phone line is connected. • Make sure there are no phone jack splitters, caller ID devices, or other devices between the receiver and the phone jack.
093, 094	Maybe you reset the receiver to the "factory defaults," which means the settings it had when we shipped it from the factory.	If you want to reset the receiver to its factory default settings, select the Yes option. If you don't, select the No option.
303	You set up the receiver to get an upgrade of the latest software via the satellite signal.	It's <i>very</i> important for the receiver to get the latest software, so let it. While it does, it's green front panel light will blink. <i>Don't</i> disturb or unplug the receiver while it gets the upgrade.
336	A problem with the DVR data on the receiver's hard drive has been detected.	Select OK. The receiver will re-initialize (reformat) the disk. You will lose all your recorded events, but you will then be able to use all the DVR and recording features again.
343	This message is displayed when trying to access DISH Home from the Main Menu when there is no signal from 110. Troubleshoot for signal loss on 110.	A Dish 500 upgrade is required for access to features, call 1-800-333-DISH.
355	Your satellite receiver has exceeded the recommended operating temperature. Placing items on top of the receiver or housing your receiver in an enclosed cabinet with limited airflow may cause this problem. Continued operation at this temperature will damage the receiver!	This error message is for receivers with hard drives only. If the receiver has good airflow, it will need to be replaced. If the receiver is in an enclosure, it will need to be moved so it can receive adequate airflow to cool it. <ol style="list-style-type: none"> 1. Verify the receiver is in an open area to receive good airflow for cooling. 2. If the receiver is in an enclosed space, the receiver must be moved to prevent damage from overheating. 3. If the receiver is in an open space, the receiver should be replaced using fail code Hard Drive Failure.

PAY PER VIEW

What's Happening	What's Wrong	What You Can Do
Someone orders a pay per view program without asking you.	Maybe you were away from the receiver, and someone else used it.	Lock pay per view. <i>Remember, you have to pay for all programs you or anyone else buys with the receiver.</i> If you lock pay per view, anyone who wants to order a pay per view program <i>must</i> enter the password.
You find you can't order a pay per view program.	<ul style="list-style-type: none"> • Maybe you haven't connected the receiver to a phone line. • Maybe you've gone over your event limit. 	<ul style="list-style-type: none"> • You <i>must</i> connect the receiver to a phone line at <i>all</i> times. If you install two or more receivers, do this for <i>each</i> receiver. • Review what you've bought with pay per view to check the event limit. If you've gone over the limit, call the Customer Service Center.
You find you can't cancel a pay per view program.	You ordered a pay per view program, and then decided not to watch it.	You <i>can't</i> cancel an order for a pay per view program, whether you just ordered it or ordered it earlier.
Your setup includes more than one receiver. You order a pay per view program, but it doesn't show up on all of the receivers.	You ordered a pay per view program, and want it to get it on all the receivers in your setup.	You can watch a pay per view program on TVs you connect to up to six receivers. To do this, you must <i>order</i> the program for <i>each</i> receiver but you <i>pay</i> for the program <i>only once</i> .

PHONE

What's Happening	What's Wrong	What You Can Do
You have connected a phone line to the receiver but when it tries to dial out, it fails.	Maybe you have a Digital Subscriber Phone Line (DSL).	Install a DSL filter between the receiver and the telephone wall jack. Make sure no other device in the phone line is blocking the signal between the receiver and the phone jack.
While you're making a phone call, you hear "clicks."	Maybe the receiver tried to call the Customer Service Center to send pay per view purchase info. When the receiver found the phone was busy, it hung up.	You don't have to do anything. You can <i>always</i> use your phone line, because the receiver hangs up if the line is busy.
You pick up the phone to make a call, but you don't hear a dial tone.	Maybe the receiver was calling the Customer Service Center to send pay per view info. When the receiver found the phone was busy, it hung up.	Hang up, and then pick up the phone again to get a dial tone.
Your computer or FAX machine tries to send a FAX or modem transmission, but fails.	Maybe the receiver was calling the Customer Service Center to send pay per view info. When the receiver found the phone was busy, it hung up. The FAX or modem found there was no dial tone, and stopped the transmission.	Send the FAX or modem transmission again.
Your computer or FAX machine was receiving a FAX or modem transmission, but there was an error.	Maybe the receiver tried to call the Customer Service Center to send pay per view purchase info in the middle of a FAX or mode call. When the receiver found the phone was busy, it hung up. This made "clicks" that caused the error.	Have the sender send the FAX or modem transmission again.

Chapter 5

Reference

PICTURE

What's Happening	What's Wrong	What You Can Do
<p>The receiver's front panel POWER light is on, but the TV image:</p> <ul style="list-style-type: none"> • is black (no picture), • is frozen, • has break-ups, • has "snow," or • shows small squares of many colors. 	<ul style="list-style-type: none"> • Maybe the TV set isn't working right. • If the TV and the receiver are working right, maybe there's interference with the satellite signal. • Maybe you wired the TV to the wrong port. 	<ul style="list-style-type: none"> • Make sure you plug the TV into an outlet. Make sure the outlet has power. • Make sure you turn on the TV. • If you connect the receiver to the TV with <i>only</i> the TV Set Out connections, make sure you tune the TV channel 3 or 4 (whichever works best in your area) and set the receiver's back panel channel 3/4 switch to the same channel as the TV. • Make sure you adjust the TV brightness and contrast. • Make sure you connect the TV to the receiver the right way and that the TV is set up to display the right input where the satellite receiver is connected. • Make sure you turn off the TV's text mode and closed captioned features. • Make sure you install the system the right way. Make sure all the cables are in place, and their connections are tight. • Make sure 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 you aim the satellite dish at the satellite. • Check the strength of the signal with the Point Dish and Signal Strength menu. • Check the local weather. Heavy rain, snow, or cloud cover can interfere with the satellite signal. Brush snow, leaves, <i>etc.</i> off the satellite dish.
<p>The receiver's front panel POWER light is on, and there's a picture on the TV screen, but the picture:</p> <ul style="list-style-type: none"> • 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"> • Maybe the TV set isn't working right. • If you connect the receiver to the TV with only the TV ANTENNA/CABLE IN and TV SET OUT ports, maybe there's a strong local broadcast on the same channel, or on a channel next to the one where you tuned the TV. • Maybe there's interference from other nearby devices (like cell phones, computers, microwave ovens, radios, stereos, or TVs). 	<ul style="list-style-type: none"> • Make sure you adjust the TV brightness and contrast, and the TV is working right. • Make sure you connect the TV to the receiver the right way. • Check whether nearby devices are sources of interference. • Make sure all the cables are in place, and their connections are tight. • Check the dish-to-receiver cable run length; if it's over 100 feet, call the Customer Service Center for help. • Change the receiver CH3/CH4 switch and the TV both to the other channel (3 or 4) to eliminate the interference.
<p>A "black box" fills almost all of the TV screen.</p>	<p>Maybe you turned on the Closed Captioned feature on the TV, and put that feature into Text mode.</p>	<p>Use the TV remote control and/or menus the TV displays (<i>not</i> the receiver remote control or menus the receiver displays) to turn off the closed captioned feature.</p>
<p>The TV screen is all blue.</p>	<p>Maybe you connected the receiver to an input on the TV that's wrong for the signal output from the receiver. Maybe a VCR is causing the problem.</p>	<ul style="list-style-type: none"> • Check your TV user's manual for the right TV input to use for the signal from the receiver. • Set up your TV to display the right input where your receiver is connected. • Make sure the receiver is on. • If a VCR is installed between the receiver and TV, turn the VCR off to loop the receiver signal to the TV.

REMOTE CONTROL

What's Happening	What's Wrong	What You Can Do
While you do a remote procedure, the remote control "times out."	<ul style="list-style-type: none"> If you don't press any button for 20 seconds, the remote "times out." If you hold a button longer than two minutes, the remote control stops transmitting. 	<ul style="list-style-type: none"> Start over again. Designed to save battery life.
You can't find the remote control.	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Use the receiver's front panel buttons to control the receiver until you find the remote. If the remote control is lost for good or too damaged to use, call the Customer Service Center to order a replacement.
When you press the remote control POWER button to turn the receiver on, the receiver's front panel POWER light doesn't turn on.	<ul style="list-style-type: none"> Maybe the remote control batteries are weak or dead. Maybe you didn't plug the receiver power cord into a power outlet, or maybe there's a problem with the power. Maybe the remote isn't in SAT mode. Maybe the remote and the receiver have different addresses. 	<ul style="list-style-type: none"> Try other remote control buttons to see if the receiver responds. Replace the remote batteries with fresh ones. Make sure the receiver power cord is okay, and put the plug into the outlet the right way. Make sure you set the remote to SAT mode to control the receiver. Make sure the remote and the receiver have the same address. See <i>Change the Address</i> on page 21.
When you press a button on the remote control, the device doesn't do what you expect.	<ul style="list-style-type: none"> Maybe you're trying to control a device and you're not pointing the remote control right at it. Maybe the remote control is missing batteries, maybe you put the batteries in the remote the wrong way, or maybe the batteries are weak or dead. Maybe you didn't set the remote to the mode for the device you want to control. Maybe you didn't set up the remote to control the device. Maybe UHF signals from a neighbor's remote are blocking signals from your remote. 	<ul style="list-style-type: none"> Remember, the remote control uses IR signals to control all devices except for the receiver. IR signals travel <i>only</i> 40 feet or less, and <i>can't</i> go through walls or other solid objects. You <i>must</i> point the remote control right at the device, with <i>no</i> objects to block the signal path. If the batteries are missing or dead, put fresh AAA-size batteries in. If the remote has fresh batteries, check whether you put them in the right way. If you didn't, take them out and put them in the right way. Make sure you set the remote to the mode for the device you want to control, by pressing the correct mode button. Make sure you set up the remote to control all the devices you want to use. Put a UHF attenuator on the receiver's UHF REMOTE ANTENNA input. This will help keep stray signals from blocking your remote's signals, but also cut down how far away you can use the remote. Change the remote control and receiver address. See <i>Change the Address</i> on page 21.
When you press the remote control MUTE or VOLUME button, nothing happens.	<ul style="list-style-type: none"> Maybe you did not set up the remote to control a TV. Maybe you're trying to control TV volume but you set up the remote to control a tuner or amplifier in AUX mode. Maybe you're trying to control tuner or amplifier volume but you set up the remote to control a TV in AUX mode. 	Set up the remote to control <i>either</i> TV volume <i>or</i> tuner/amplifier volume, whichever you want.

Chapter 5

Reference

SOUND

What's Happening	What's Wrong	What You Can Do
The receiver's front panel POWER light is on and there's a good picture on the TV set, but you don't hear any sound.	<ul style="list-style-type: none">• Maybe you muted the sound, or set the volume so low you can't hear it.• Maybe you didn't connect the audio cables the right way.	<ul style="list-style-type: none">• Check the volume level on the TV or audio device. Turn off the mute or turn up the volume.• Check the audio connectors and cables from the receiver to the TV or the sound system.• Check the TV speakers or the sound system.
You hear a foreign language with a program.	Maybe you set the receiver to select a foreign language.	See <i>Change Program Languages</i> in <i>Chapter 2 - How to Use the System</i> to select the language you want.

TEST THE SYSTEM

START ANY TEST

1. Press the MENU button.
2. Select the **System Setup** option.
3. Select the **Diagnostics** option.
Note: “Diagnostics” are just “tests.”
4. Select the option for the test you want to do.
Note: If we upgrade the receiver software, we may add new tests.



TEST THE PHONE CONNECTION

1. Make sure you connect a phone line to the receiver’s back panel PHONE JACK.
2. Select the **Connection** option. The receiver displays a message that asks you to wait until the test is done.
 - If the phone connection is okay, the receiver displays a message that says so.
 - If the receiver displays a message that it needs to make a toll-free call to the Customer Service Center, select the **Dial Out** option. The receiver displays a message that asks you to wait until it finishes the call. When the receiver finishes the call, select the **Cancel** option.
 - If you didn’t connect the phone line right, the receiver displays a message that says so. Check the phone connection and then do the test again.



Note: If you have a Digital Subscriber Line (DSL), you may need to install a DSL filter between the receiver and the telephone wall jack, and then do the test again.

DEVICE CODES

These tables contain the manufacturer codes for programming the remote to control your TV, a VCR, DVD player, cable box, 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

TELEVISION	CODES
Admiral	514, 521
Akai	532, 570, 573
Alba	613
A-Mark	620
Amstrad	533
Anam	509, 541, 620, 621, 691, 698
AOC	505, 506, 519, 520, 620, 695, 712
Archer	620
Audiovox	620
Bauer	611
Baycraft	536
Brockwood	695
Broksonic	562, 691
Candle	506, 522, 523, 525, 536, 691, 695, 712
Capehart	519, 695
Circuit City	695
Citizen	506, 516, 522, 523, 524, 525, 526, 691, 712
Colortyme	573, 695
Concerto	523
Contec	527, 528, 541, 591, 691
Craig	536, 541, 691, 694
Crown	526, 536
Curtis Mathes	506, 516, 526, 573, 703, 712, 708
CXC	541, 691
Daewoo	505, 524, 526, 529, 530, 531, 532, 698, 712, 719
Daytron	526, 695

TELEVISION	CODES
Dixi	532, 588, 620
Dumont	695
EchoStar	722
Electrohome	526, 573, 709, 713
Elta	532
Emerson	526, 527, 528, 533, 534, 535, 536, 537, 538, 539, 540, 541, 573, 622, 691, 692, 695, 696, 699, 720,
Envision	506, 712
Etron	532
Fisher	542, 590
Formenti	611
Fortress	573, 605
Fujitsu	534, 694
Funai	534, 541, 691, 694
Futuretech	541, 691, 694
General Electric (GE)	503, 508, 509, 515, 540, 543, 544, 630, 695, 698, 701, 714, 715, 716
Genexxa	613
Goldstar	505, 523, 526, 545, 546, 573, 588, 693, 712
Granada	695, 711
Grand	695
Grandiente	711
Grundig	547
Hallmark	695
Harmon Kardon	561
Hinari	534
Hitachi	523, 526, 548, 549, 550, 551, 552, 553, 554, 555, 585, 597, 626, 702, 718
Infinity	566

TELEVISION	CODES
JBL	566
JC Penney	503, 505, 506, 516, 526, 531, 543, 596, 701, 714
Jenson	556, 573
JVC	557, 558, 559, 560
Kawasho	548, 561, 712
Kenwood	506, 573, 712
Kloss	522, 561, 610, 698
KTV	526, 539, 540, 541, 691, 696, 712
Lloyds	695
Lloytron	526
Loewe	588
Logik	518
Luxman	523
LXI	503, 563, 566, 590, 595, 617, 625, 701
Magnasonic	573
Magnavox	506, 520, 525, 536, 564, 565, 566, 567, 568, 569, 573, 575, 610, 710, 712
Marantz	506, 566, 573, 588, 712
Matsui	532, 609
Megatron	695
Memorex	518, 532, 590, 695, 720
MGA	504, 505, 506, 571, 573, 695
Mitsubishi	504, 505, 570, 571, 572, 597, 623, 695, 705, 707, 712
MTC	505, 506, 516, 523, 531, 695, 712
NAD	502, 617, 695
National	509, 697, 698
National Quenties	697

TELEVISION	CODES
NEC	505, 506, 507, 517, 523, 573, 627, 712
Nikkai	612, 613, 618
Nordmende	551
Normandic	717
Novabeam	561, 698
Nyon	701
Onwa	541, 691
Optonica	605, 607
Orion	694
Osaki	612
Panasonic	508, 509, 510, 511, 512, 566, 574, 685, 686, 687, 689, 697, 698, 700, 706, 714, 716
Philco	505, 506, 525, 536, 564, 565, 568, 573, 610, 712
Philips	566, 588
Pioneer	502, 548, 551, 576, 708
Portland	505, 526, 712
Proscan	503
Proton	513, 519, 526, 536, 585, 624, 695
Pulsar	501
Quasar	508, 509, 577, 698, 700
Radio Shack	526, 541, 607, 612, 691, 698
RCA	503, 505, 515, 548, 579, 580, 581, 582, 583, 584, 586, 587, 625, 633, 634, 691, 698, 701, 708, 714, 715, 716
Realistic	590
Saba	551
Saisho	532, 533, 609
Sampo	506, 519, 698
Samsung	505, 506, 516, 523, 526, 532, 588, 612, 695, 704, 712, 721
Samwon	620
Sanyo	542, 589, 590, 591, 592, 609

TELEVISION	CODES
SBR	588
Schneider	588
Scott	526, 534, 537, 541, 593, 600, 691, 696, 701
Sears	503, 523, 534, 542, 563, 589, 590, 594, 595, 596, 598, 599, 601, 602, 603, 604, 617, 695, 703
Seimitsu	695
Sharp	526, 585, 591, 605, 606, 607, 608, 628, 629
Siemens	591
Signature	518
Silver	573
Solavox	612
Sony	500, 578, 609, 619, 622, 690
Soundesign	525, 536, 541, 691, 695
Spectricon	520, 620
Squareview	694
SSS	505, 541, 573, 691, 712
Supra	523
Supre-Macy	522
Sylvania	506, 525, 536, 564, 565, 566, 568, 573, 575, 600, 610, 611, 712
Symphonic	632, 692, 694
Tandy	605, 613
Tatung	509, 698
Technics	508
Techwood	523, 573
Teknika	504, 505, 516, 518, 522, 523, 524, 525, 526, 534, 536, 541, 614, 615, 686, 691, 712
Teleavia	551
Telefunken	551
Teletch	532
Tera	513
Thomas	695

TELEVISION	CODES
Thompson	709
Thomson	551, 616
TMK	523, 573, 695
Toshiba	516, 590, 596, 617, 618, 631, 688
Tosonic	528
Totevision	526
Toyomenko	695
Universal	543
Vector Research	506
Victor	557
Video Concepts	570, 691
Vidtech	505, 695, 712
Viking	522
Wards	505, 506, 515, 518, 534, 536, 543, 564, 565, 567, 568, 607, 619, 712, 714, 715
Yamaha	505, 506, 712
York	695
Zenith	501, 518, 693
Zonda	620

VCR CODES

VCR	CODES
Aiwa	588, 622, 623, 624
Akai	513, 514, 515, 516, 517, 518, 519, 520, 568,
Alba	546
Amstrad	588
ASA	565
Audio Dynamics	594, 600
Broksonic	559
Bush	589
Candle	580, 592, 593
Canon	542, 553, 554
Capehart	543, 546
Citizen	591, 592, 593
Craig	591, 608

Chapter 5

Reference

VCR	CODES
Croslex	553
Curtis Mathes	554, 592, 605
Daewoo	534, 545, 546, 547, 593
Daytron	546
DBX	594, 600
Dumont	549
Dynatech	588
Electrohome	609
Emerson	505, 506, 507, 508, 509, 510, 511, 512, 559, 568, 588, 590, 609, 618
Finlandia	549
Finlux	549, 565, 588
Fisher	548, 549, 584, 588, 608, 610
General Electric (GE)	550, 551, 552, 554, 572, 591, 605
Goldstar	530, 555, 592, 612, 613
Goodmans	585, 589
Go Video	557, 558, 620
Granada	549, 581
Grundig	565
Harmon Kardon	530, 569
Hinari	589
Hitachi	536, 537, 538, 539, 540, 541, 553, 588, 595, 596, 597
Instant Replay	553
ITT	518
JC Penney	530, 554, 580, 591, 594, 600, 601
Jenson	560
JVC	561, 562, 563, 564, 592, 594, 600, 601
Kenwood	562, 581, 592, 594, 600, 601
Lloyd	588
Logik	589
Luxor	518

VCR	CODES
Magnavox	527, 553, 554, 556, 565, 611
Marantz	530, 554, 565, 585, 592, 594, 600, 601, 603
MEI	554
Memorex	533, 549, 554, 566, 581, 585, 588, 608
MGA	567, 568, 609
Mitsubishi	562, 567, 568, 569, 570, 571, 609
MTC	544, 580, 588
Multitech	588, 589, 591
NAD	573
NEC	530, 531, 532, 562, 592, 594, 599, 600, 601, 602, 603, 604
Olympic	553
Optonica	585
Orion	506, 507
Panasonic	521, 522, 523, 524, 526, 553, 554, 598, 614, 628, 633
Pentax	537, 592
Perdio	588
Philco	553, 554, 611
Philips	553, 554, 565, 585
Pioneer	553, 562, 573, 574, 575, 576, 600
Portland	546, 593
Proscan	553, 605
Pulsar	533
Quartz	581
Quasar	553, 554, 577, 578
Radio Shack	607, 608, 609, 610
RCA	525, 526, 527, 528, 529, 537, 553, 591, 605, 606, 615, 630, 631
Realistic	549, 554, 580, 581, 584, 585, 588
Ricoh	502
Saisho	506, 507
Salora	567, 581

VCR	CODES
Samsung	517, 534, 579, 580, 591
Sansui	532, 544, 562, 600, 621
Sanyo	549, 581, 582, 583, 608
SBR	565
Schneider	589
Scott	508, 559, 590
Sears	548, 549, 581, 584, 608, 610,
Sentra	546
Sharp	585, 607, 609, 625
Shintom	589
Sony	500, 501, 502, 503, 504
Sylvania	553, 554, 556, 567, 588, 611
Symphonic	588, 594
Tandy	588
Tashiko	588
Tatung	586, 594, 601
Teac	588, 594, 601
Technics	553, 554
Teknika	554, 587, 588
TMK	506
Toshiba	534, 535, 567, 590
Totevision	580, 591
Unitech	580
Vector Reaserch	530, 600
Victor	561, 562, 600
Video Concepts	568, 600
Videosonic	591
Wards	527, 554, 580, 585, 588, 589, 590, 591, 607, 608, 609
Yamaha	530, 592, 594, 600, 601
Zenith	500, 501, 533

DVD PLAYER CODES

DVD Players	Codes
Aiwa	634
Hitachi	632, 635
JVC	636
Konka	637, 638
Magnavox	626
Mitsubishi	629
Panasonic	639
Philips	640, 641, 642
Pioneer	619
RCA	627
Sanyo	643
Sony	617, 644, 645
Toshiba	616, 646, 647
Zenith	648

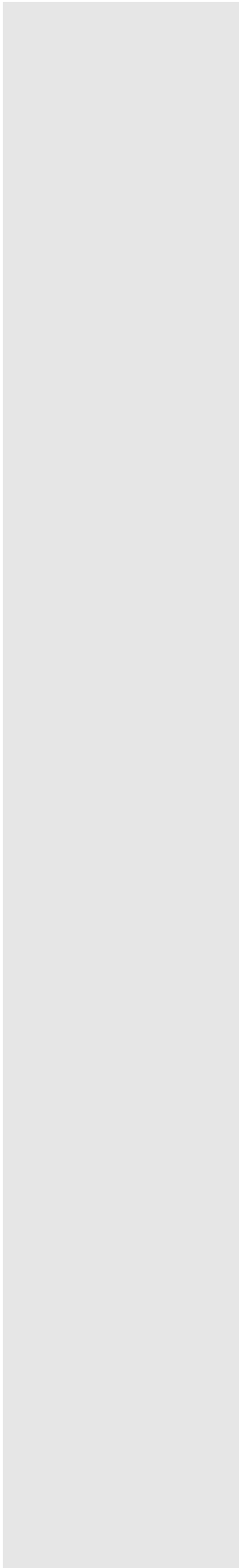
TUNER/AMPLIFIER CODES

Tuner/Amplifier	Codes
Aiwa	656, 680, 687, 718, 719, 720, 723, 724, 725, 726
Carver	653, 706
Citizen	709
Denon	674
Fisher	653, 706
GE	665, 711
Goldstar	677, 690
Harmon Kardon	672
Hitachi	717
JVC	657, 683, 703, 727
Kenwood	676, 691, 728
Luxman	681, 686
LXI	665
Magnavox	705
Marantz	708
Memorex	675, 692
NAD	669, 696

Tuner/Amplifier	Codes
Nakamichi	671, 694
NEC	716
Onkyo	660, 662, 678, 689, 699, 700
Optimus	664, 697
Panasonic	652, 707
Pioneer	658, 661, 667, 668, 675, 679, 688, 692, 702
Proton	654, 705
Quasar	652, 707
RCA	655, 704, 729
Realistic	665, 666
Scott	659, 701
Sharp	712, 713, 714, 715
Sherwood	670, 695
Sony	673, 680, 687, 693, 730, 731
Symphonic	666
Teac	684
Technics	652, 658, 707
Toshiba	710
Victor	657, 703
Yamaha	663, 682, 685, 698, 732, 733

CABLE BOXES

Cable Boxes	Codes
Eastern	649
CI/Tocom	640
Jerrold	635, 636
Memorex	637
Oak	646
Panasonic	637, 644, 645
Paragon	637
Pioneer	642, 643
Regency	649
Scientific America	638, 639, 647, 648, 650
Zenith	641



Notes