

TROUBLESHOOTING AND DEVICE CODES

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TROUBLESHOOTING TABLES

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

- 1. Review the section in this Guide that relates to the problem.
- 2. Sometimes resetting the receiver can fix a minor problem. See *Resetting Your Receiver* on page 12-18.
- 3. If you cannot find a solution, then find the section in the following tables that relates to the problem. Look down the *What Is Happening* column until you find the problem.
- 4. For better understanding, read the information in the Possible Reason column.
- 5. Try each of the suggested solutions in the What to Do column.
- 6. For more information, call the Customer Service Center at 1-888-SKY-DISH, or see *www.bell.ca*.

Note: Before calling the Customer Service Center, have ready the date of purchase and either your customer account number, the receiver conditional access number, or the receiver model number. Display the System Information screen to find these numbers (See Ordering your Programming). Also, write down any error messages that the receiver displays on the television screen.



Message Number	Possible Reason	What to Do
001	There may be a problem with the multi-dish switch.	Check the coaxial cables and their connections to and from the multi-dish switch. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Run Check Switch as described on page 12-19. If this does not work, call the Customer Service Center at 1-888-SKY-DISH for help.
002	Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal, or there may be other interference.	Note the local weather conditions. Remove any snow or other debris which may have collected on the satellite dish. Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the Point Dish screen as described on page 12-19. Consult your installer to re-aim the dish, if necessary, to obtain the strongest possible signal.
003, 004	The wrong type of coaxial cable may be used in the system, or the cable run length may be too long. Or, there may be a problem with the multi-dish switch.	Make sure the system uses RG6 coaxial cable; if not, call your dealer or installer. If it is a Legacy system, it should not be more than 100 feet. Check the coaxial cables and their connections to and from the multi-dish switch. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). If this does not work, do the Check Switch test described on page 12-19.
005	The receiver may not yet have been electronically linked with the system, via the satellite signal. The satellite dish may have moved so that it is no longer picking up the satellite signal. The cable connections may have loosened or have moisture inside. There may be an interruption of the satellite signal.	If you have authorized the receiver, wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish screen is green and displays the word Locked, as described on page 12-19. If not, contact your installer to reaim the satellite dish. If you have not authorized the receiver, call the Customer Service Center at 1-888-SKY-DISH for help.

MESSAGE NUMBERS

Message Number	Possible Reason	What to Do
006	The receiver may not be connected to an active telephone line.	You must connect the receiver to an active telephone connection at all times. If you install two or more receivers, you must connect each receiver to an active telephone connection at all times.
011, 012	Viewers in specific areas are prohibited from watching certain programs. For example, viewers who live close to a particular football stadium may be prohibited from watching football games that are played in that stadium.	Remember that the program providers specify which programs are "blacked out" for which viewers, not Bell ExpressVu.
013, 014	You may have tried to tune to a program on a channel which you have not bought.	You must buy a channel before you can tune to a program on that channel. Call the Customer Service Center at 1-888-SKY-DISH to buy the channel, or if you believe this message was displayed by mistake.
015	You may have just plugged in the receiver, and it is acquiring the satellite signal. Or, the receiver may have temporarily lost the signal.	Wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish screen is green and displays the word Locked, as described on page 12-19. If not, contact your installer to re-aim the satellite dish.
018	The receiver may not be connected to an active telephone line.	You must connect the receiver to an active telephone connection at all times. If you install two or more receivers, you must connect each receiver to an active telephone connection at all times. Call the Customer Service Center at 1-888-SKY-DISH for help checking the credit limit and/or to get authorization to make a purchase.
022	The receiver may not yet have been electronically linked with the system, via the satellite signal. The satellite dish may have moved so that it is no longer picking up the satellite signal. The cable connections may have loosened or have moisture inside. There may be an interruption of the satellite signal.	If you have authorized the receiver, wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish screen is green and displays the word Locked, as described on page 12-19. If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center at 1-888-SKY-DISH for help.



Message Number	Possible Reason	What to Do
026	The receiver may have temporarily lost the satellite signal.	Wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Check that the Signal Strength bar in the Point Dish screen is green and displays the word Locked, as described on page 12-19. If not, contact your installer to re-aim the satellite dish.
028	The receiver may need to get new software before you can use it to order pay per view programs.	Turn the receiver off. Doing this allows the receiver to "download" new software via the satellite signal. The download may take several minutes; do not disturb or unplug the receiver during this time. When the download is done, you will be able to use it to order pay per view programs.
059	You may have tried to close an installation menu without having done the Check Switch test.	If your setup includes a multi-dish switch, you must run the Check Switch test as described on page 12-19.
060	You may have aimed the satellite dish at one satellite, but selected the option for another satellite on the Point Dish screen.	Make sure that you have selected the option for the right satellite on the Point Dish screen, as described on page 12-19. Make sure that the cable(s) for the satellite you have selected are connected to the LNBF that receives signals from that satellite. Re-aim the satellite dish at the right satellite.
061	You may have set up the receiver to accept a transmission (a "download") of the latest operating software via the satellite signal.	It is very important for the receiver to get the latest operating software, so let the receiver do so. The "download" may take several minutes. Do not disturb or unplug the receiver during this time.
074	The receiver gives you three chances to enter the correct password. If you fail to do so, the receiver "times out" and will not allow you to try again for several minutes.	Wait a few minutes and then try again to enter the password. Note: The "time out" feature is designed to prevent someone from trying password after password until he or she happens to guess the right one and so gains unauthorized access to the receiver.
078, 079, 080	You may not have connected the receiver to an active telephone line, or the telephone line may be defective.	Connect the receiver to an active telephone line. Make sure that the telephone line to which you connect the receiver is working properly. Note: To be able to order pay per view programs, you must keep the receiver connected to an active telephone line at all times. If your setup includes more than one receiver, this applies to each receiver. The receiver uses the telephone line to make toll-free calls, usually in the middle of the night, to send information to the Customer Service Center at 1-888-SKY-DISH.

Message Number	Possible Reason	What to Do
093	You may have set up the receiver to reset itself back to the "factory defaults," that is, the settings it had when it was shipped from the factory.	If you want to reset the receiver to its factory default settings, select the Yes option. If not, select the No option.

REMOTE CONTROL

What Is Happening	Possible Reason	What to Do
You cannot find the remote control	• N/A	• Use the receiver front panel Control Buttons 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.
When you press a button on the remote control, the receiver does not do what you expect.	 The remote control may be missing batteries, the batteries may be incorrectly placed in the remote, or the batteries may be weak or dead. You may be using the wrong remote control (1 or 2) for the menus (TV1 or TV2) you are trying to operate. 	 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. Make sure you are using Remote Control 1 (2) to control TV1 (TV2) menus.
Your UHF Pro remote control does not work well from far away.	You may be experiencing interference from objects near your receiver antenna.	 Make sure the UHF antenna is connected to the receiver and not touching anything else. Vary the tilt angle of the receiver's UHF antenna. Locate the UHF antenna tip away from other electronics equipment or metal surfaces, even if separated by wooden shelving. Move the receiver to different locations. For best results, place the receiver as high as possible, above all other equipment in your entertainment center. Place the UHF antenna outside the entertainment center by using a coaxial cable to connect it to the receiver.
When you press the remote control Power button to turn the receiver ON, the receiver front panel Power light does not light up.	 Other lights are too bright. Remote control not operating properly or the batteries are weak or dead. 	 Try other remote control buttons to see if the receiver is responding. Replace the remote batteries with fresh ones.
not ngnt up.	 Weak of dead. The receiver power cord not plugged into a power outlet, or there may be a problem with the power. The remote control(s) may not be set to the address(es) used by the satellite receiver. 	 Check that the receiver power cord is not damaged, and that the plug is inserted correctly into the outlet. Make sure the remote control(s) are set to the same address(es) used by the satellite receiver. See page 10-2 for information on changing the
	• You may be using the wrong remote control (1 or 2) for the menus (TV1 or TV2) you are trying to operate. • If the receiver is in Single Mode, the TV2 indicator will not light.	 remote control address. Make sure you are using Remote Control 1 (2) to control TV1 (TV2) menus. This is normal. No action required or switch to Dual Mode.



What Is Happening	Possible Reason	What to Do
You use an IR extender (not a "mouse tail"), and it does not seem to work.	 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. 	 Make sure that the extender that receives the signal from the remote control is facing the right way, so that the IR sensor can receive the remote control signals. Make sure that the IR cable on the extender that sends the signal to the receiver is right in front of the IR sensor on the receiver front panel, so that the receiver IR sensor can receive the signals. If doing the above does not solve the problem, contact the manufacturer of the extenders for assistance. Use an IR extender only with Remote Control I which uses IR signals.
	• You are using Remote Control 2 which does not transmit IR signals.	• Use the correct remote control.

WATCHING A PROGRAM

What Is Happening	Possible Reason	What to Do
The receiver front panel Power light is on, but the TV image: is black (no picture), is frozen, has break-ups, has "snow," or shows small squares of various colours.	 The TV set may not be working properly The TV may be connected to the wrong input Make sure the TV is set up correctly. 	 Make sure that the TV set is plugged into an electrical outlet. Make sure the outlet has electrical power. Make sure that the TV is turned on and tuned to the correct input. Make sure that the TV brightness and contrast are adjusted correctly. Make sure that the TV is connected properly to the receiver. Make sure that the TV's text mode and closed captioned features are turned off. Check that the system has been installed correctly. Make sure that all required coaxial cables are in place, and check that all cable connectors
	If the TV and the receiver are working properly, there may be interference with the satellite signal. • You have selected an HD mode your HDTV does not support.	 are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the Point Dish screen, as described on page 12-19. 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 Refer to your HDTV user's guide.

What Is Happening	Possible Reason	What to Do
The receiver front panel Power light is on, and there is a picture on the TV screen, but the picture: has sparkles or is grainy, has a herringbone pattern, lacks colour or vertical hold, or wobbles, or looks "washed out" or fuzzy.	 The TV set may not be working properly. If the receiver is connected to the remote TV using 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. 	 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.
	• There may be interference from other nearby electrical devices (such as radio towers, cellular telephones, computers, microwave ovens, radios, stereos, or TVs).	 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. Make sure the system is properly grounded.
A "black box" fills almost all of the TV screen.	• You may have turned on the Closed Captioned feature on the TV, and put that feature into Text mode.	• Using the TV remote control and/or menus displayed by the TV (not the receiver remote control or the menus displayed by the receiver), turn off the closed captioned feature.
The TV screen is all blue.	• You may have connected the receiver to an input on the TV that is incorrect for the signal output from the receiver.	• Check your TV owner's manual for the correct TV input to use for the signal output from the receiver.

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.	• You must enter the password before you can create an event timer for a locked program.	• To be able to set up an event timer for the program, first enter the password.
You try to set up an event timer and the receiver displays a message noting that the program is a pay per view event.	• You must order a pay per view event before you can create an event timer for it.	• To be able to set up an event timer for the event, first order it.
You try to set up an event timer, but the receiver displays an Error message giving you the option to delete an event timer that was set up earlier.	You already have set up the maximum number of event timers.	• To be able to set up a new event timer, delete one of the event timers you set up earlier.

What Is Happening	Possible Reason	What to Do
You set up an event timer, but the receiver does not tune to the channel of the program, or does not record the program.	• You may have set up a Reminder but what you should have set up is an Auto-Tune or a PVR timer.	• Remember that a Reminder just reminds you that the program is about to start. An Auto- Tune timer reminds you and tunes the receiver to the program. A PVR timer reminds you, tunes the receiver, and starts the hard disk. A PVR timer can operate only if the receiver memory has enough space.
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.	You may have set up a timer with an incorrect frequency.	• Remember that a Once event timer operates just one time. A MonFri. event timer operates Monday through Friday on the same channel at the same time. A Daily event timer does the same, Monday through Sunday. A Weekly event timer operates once a week on the same channel at the same time.
You set up an event timer, but the timer does not operate at all.	• You may have another timer set to record that program or the program was already recorded and can be seen in the PVR Events list.	• Check the reasons why timers are skipped on page 9-4.
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.	• Stopping the event timer applies only to the current showing of the program.	• To stop all operations of a repeated event timer, you must delete the event timer. Note: The receiver deletes a Once event timer when it operates.
You edit an automatic event timer. The timer does not start or does not end according to the program for which you set the timer.	• Editing an automatic event timer converts it to a manual event timer. Such a timer starts and stops at the times you specify, not the start and stop times of any specific program.	 If you want an automatic event timer to start and stop according to a specific program, avoid editing that event timer.
You try to set up a manual event timer. The receiver displays an Error message.	• You may have tried to set a manual event timer with invalid start or stop times.	• Review the rules on start and stop times for manual event timers.
The receiver does not display the program name for a manual event timer.	• The receiver may not be able to display a program name for a manual event timer.	• Use the Program Guide or a printed schedule to find the program name.
You set an event timer. The event timer misses the beginning or the end of a program.	• The program may have started a little earlier than scheduled, or it may have run over its scheduled ending time.	 Use the Start 1 min. early option to start any event timer one minute early, except for a pay per view event. Use a manual event timer to start any event
		timer at the times you set yourself, except for a pay per view event.

PROGRAM GUIDE OR THE BROWSE BANNER

What Is Happening	Possible Reason	What to Do
In the Program Guide, some channels have a red background.	• Red means that you have not subscribed to that channel. You must subscribe to a channel before you can tune the receiver to it.	• If you want to buy a channel, call the Customer Service Center at 1-888-SKY-DISH.
You try to display future programs in the Program Guide or Browse Banner, but find you cannot.	• The Program Guide and Browse Banner can display programs scheduled for an extended, but not unlimited time beyond the present.	• Try displaying the Program Guide again later. By that time, 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 cannot.	• The Program Guide and Browse Banner can display only programs that have not yet ended. These features cannot display a time earlier than the present.	• Contact the program providers (for example, the channel or network affiliate that broadcast the program) for details on past programs.
The Program Guide is in the wrong order.	The Program Guide order is set incorrectly.	• Press the Menu button on your remote control, select Preferences, select View Preferences, and then set your Program Guide in the order you wish to view the channels.
When you are using the Program Guide or Browse Banner, some channels are missing.	• You may have applied a Favourites List other than the list named All Chan.	You can change the applied Favourites List while using the Program Guide by pressing the remote control Guide button. You can choose another custom Favourites List, the All Chan list, which includes all the channels, or the All Sub list, which includes all subscribed channels.
	• You may have set up the Program Guide so that when the receiver is locked, the Guide hides adult channels	Unlock the receiver for the Program Guide to display adult channels.

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.



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.	• You may have made a mistake entering the channel number, or the channel number you entered may be invalid.	Carefully try entering again the channel number you want.
You are scanning up or down through the channels, and the receiver is skipping channels that you know you have subscribed to.	 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 subscribed to, the receiver will change to the channel and display a message suggesting that you might want to subscribe to the channel. If a Favourites List other than All Chan is applied, the receiver will skip channels that are not on the applied list. If you have set up the Program Guide to hide adult channels and the receiver will skip such channels and the receiver will skip such channels. 	• Select All Chan as the active Favourites List. Unlock the receiver so that it does not skip adult channels. If you want to buy a channel, call the Customer Service Center at 1-888-SKY-DISH.

LOCKS

What Is Happening	Possible Reason	What to Do
You set a lock (for example, a lock on programs by ratings), but the lock does not take effect.	• You may not have locked the receiver.	• You must lock the receiver to apply any lock that you have set.
You forgot the password, so that you are unable to unlock the receiver.	• You may not have written down the password, to keep it in a safe place.	• Call the Customer Service Center at 1-888-SKY-DISH. You must provide the following information: (1) your name; (2) your address; (3) your telephone number; (4) the receiver serial identification number; and (5) your Personal Identification Number (PIN), if you use one.

FAVOURITES LISTS

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

HEARING A PROGRAM

What Is Happening	Possible Reason	What to Do
The receiver front panel Power light is on and there is a good picture on the TV set, but you do not hear any	• You may have muted the sound, or set the volume so low that you cannot hear it.	• Check the volume level on the TV or audio device. Turn off the mute or turn up the volume, as required.
sound.	• The audio connections may not be properly connected.	• 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 have selected Dolby Digital Only when there is no Dolby Digital soundtrack.	• In the Dolby Digital menu, select Dolby Digital/PCM for the audio output. If your decoder/amplifier will not accept Linear PCM digital input, use the analog connections instead.
You hear a foreign language with a program.	• You may have set the receiver to select an alternate audio language. The program may be in a foreign language.	• Use the Alternate Audio Language menu to select the language that you prefer.

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BUYING A PAY PER VIEW PROGRAM

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

TELEPHONE FOR VOICE/DATA/FAX

What Is Happening	Possible Reason	What to Do
While you are making a telephone call, you hear "clicks."	• 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.	• 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.
You pick up the telephone to make a call, but you do not hear a dial tone.	• 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.	• Hang up, and then pick up the telephone again to get a dial tone.
Your computer or facsimile (FAX) machine tries to send a FAX or modem transmission, but fails.	• 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.	• Re-send the FAX or modem transmission.

What Is Happening	Possible Reason	What to Do
Your computer or FAX machine was receiving a FAX or modem transmission, but an error occurred.	• The receiver may have tried to call the Customer Service Center to send pay per view purchase inform tion during the FAX or modem call. When the receiver found that the telephone was busy, it automatically disconnected. This generated "clicks" that caused an error in the FAX or modem transmission.	• Have the sender resend the FAX or modem transmission.

CALLER ID

What Is Happening	Possible Reason	What to Do
Caller ID is not working.	• You do not have Caller ID service from your local phone company.	• Verify that Caller ID is a service provided by your local phone company.
	• Your phone line is not connected to the phone jack on the back of the receiver.	• Verify that you have connected the phone line to the phone jack on the back of the receiver.
	• You do not have the Caller ID option enabled.	• Verify that you have enabled the Caller ID option on the View Preferences screen.

Codes



DEVICE CODES FOR PROGRAMMING THE REMOTE

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

TV Codes

A Mark	670
Action	662
Admiral	514, 521, 605, 668, 669, 675
Aiko	727
Aiwa	751
Akai	570, 573, 659, 660
A-Mark	620
Amtron	657
Anam	509, 541, 620, 661
Anam National	651, 657, 663, 698
AOC	505, 506, 519, 520, 573, 620,
huu	627, 652, 653, 654, 659, 664,
	027, 032, 033, 034, 039, 004,
Annu	665, 670, 672
Apex	743, 744, 745, 757
Archer	620
Audiovox	620, 657, 662, 672
Bell & Howell	590, 669, 675
Broksonic	562, 659, 661, 748, 752
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,
0010111110	668, 671, 674, 679
Contec	541
Contec Cony	661, 662
Contec/Cony	
	655, 657, 726
Craig	536, 541, 657, 661, 662, 666,
<u>_</u>	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	667, 668, 670, 680, 703, 708
Daewoo	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531,
Daewoo	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659,
Daewoo	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674,
	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727
Daewoo Daytron	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665,
Daytron	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 662, 654, 658, 665, 670, 672
Daytron Dimensia	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650
Daytron Dimensia DISH	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742
Daytron Dimensia DISH Dixi	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620
Daytron Dimensia DISH Dixi Dumont	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 670, 672, 674, 686, 667, 667, 667, 667, 670, 672, 645, 660 742 566, 620 501, 627, 652
Daytron Dimensia DISH Dixi Dumont Echostar	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 684, 688, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722
Daytron Dimensia DISH Dixi Dumont	667, 668, 670, 680,703,708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 653, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 506, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656,
Daytron Dimensia DISH Dixi Dumont Echostar Electrohome	667, 668, 670, 680,703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 722 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728
Daytron Dimensia DISH Dixi Dumont Echostar	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 646, 665, 670, 672, 674, 646, 665, 670, 672, 674, 646, 665, 670, 672, 674, 647, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538,
Daytron Dimensia DISH Dixi Dumont Echostar Electrohome	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 633, 664, 665, 670, 672, 674, 644, 688, 719, 727 526, 657, 652, 654, 658, 665, 670, 672 645, 660 742 566, 620 501, 627, 652 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 779, 728 526, 573, 561, 652, 654, 656, 526, 573, 536, 537, 538, 537, 538, 526, 573, 536, 537, 538, 537, 538, 526, 534, 535, 536, 537, 538, 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636,
Daytron Dimensia DISH Dixi Dumont Echostar Electrohome	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 646, 665, 670, 672, 674, 647, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538,
Daytron Dimensia DISH Dixi Dumont Echostar Electrohome	667, 668, 670, 680,703,708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 506, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 557, 369, 627, 636, 642, 652, 654, 655, 657, 658,
Daytron Dimensia DISH Dixi Dumont Echostar Electrohome	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 684, 665, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 645, 650 742 566, 620 501, 627, 652 526, 573, 651, 652, 654, 656, 659, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 550, 627, 658, 642, 652, 654, 655, 67, 658, 659, 660, 661, 662, 665, 666,
Daytron Dimensia DISH Dixi Dumont Echostar Electrohome	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 634, 664, 665, 670, 672, 674, 644, 688, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 656, 526, 573, 551, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 655, 657, 658, 654, 652, 657, 657, 658, 654, 655, 657, 657, 658, 654, 655, 657, 658, 654, 655, 657, 658, 654, 655, 657, 658, 654, 655, 657, 658, 654, 655, 657, 658, 654, 655, 657, 658, 654, 655, 657, 658, 659, 660, 661, 662, 665, 667, 659, 660, 677, 679, 682,
Daytron Dimensia DISH DDvi Dumont Echostar Electrohome Emerson	667, 668, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 633, 664, 665, 670, 672, 674, 644, 688, 719, 727 526, 657, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 655, 657, 658, 659, 660, 661, 662, 665, 666, 659, 660, 661, 662, 665, 666, 659, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 632, 693, 600, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682,
Daytron Dimensia DISH Divi Dumont Echostar Electrohome Emerson Envision	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 688, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 644, 650 742 566, 620 501, 627, 652 526, 573, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 573, 534, 535, 536, 537, 538, 539, 541, 573, 550, 627, 658, 642, 652, 665, 666, 667, 668, 667, 669, 670, 677, 679, 682, 639, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 639, 690, 561, 652, 654, 656, 667, 658, 667, 669, 670, 677, 679, 682, 699 506, 573, 652, 654, 660, 664
Daytron Dimensia DISH DISH Dixi Dumont Echostar Electrohome Emerson Envision Fisher	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 655, 657, 658, 659, 660, 661, 662, 665, 666, 657, 669, 670, 677, 679, 682, 639, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 639, 500, 673, 652, 654, 660, 664 542, 500, 663
Daytron Dimensia DISH DDISH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Figher Fujitsu	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 634, 648, 665, 670, 672, 674, 644, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 660 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 537, 538, 539, 541, 573, 590, 627, 636, 642, 662, 664, 655, 657, 658, 659, 660, 665, 670, 709, 728 526, 534, 535, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 655, 656, 656, 666, 659, 660, 661, 662, 665, 666, 659, 660, 661, 662, 665, 666, 659, 660, 670, 679, 882, 632, 699 506, 573, 652, 654, 656, 666, 666 542, 590, 683 534, 682, 694
Daytron Dimensia DISH DISH Dixi Dumont Echostar Electrohome Emerson Envision Fisher	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 633, 664, 665, 670, 672, 674, 644, 689, 719, 727 526, 657, 652, 654, 658, 665, 670, 672 645, 660 645, 660 742 566, 620 501, 627, 652 526, 573, 651, 652, 654, 656, 660, 650, 670, 709, 728 526, 553, 536, 537, 538, 537, 538, 537, 538, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 655, 666, 667, 669, 660, 666, 662, 665, 666, 667, 669, 670, 679, 682, 669, 664 542, 590, 683 544, 552, 534, 535, 536, 537, 538, 537, 538, 537, 538, 537, 538, 537, 538, 537, 538, 537, 538, 539, 541, 573, 590, 627, 636, 664, 652, 665, 666, 667, 669, 670, 679, 679, 682, 692, 699 500, 573, 562, 554, 665, 666, 664 542, 590, 683 534, 534, 652, 654, 665, 666, 664 542, 590, 683 534, 534, 652, 654, 665, 666, 664 542, 590, 683 534, 534, 652, 654, 656, 666, 664 542, 590, 683 534, 652, 654, 656, 666, 664 534, 534, 657, 651, 652, 657, 651, 652, 657, 651
Daytron Dimensia DISH DiSH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Fujitsu Funai	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 668, 670, 672, 674, 684, 668, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 644, 665, 670, 672, 674, 645, 650 742 566, 620 566, 620 567, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 573, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 550, 627, 658, 659, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 639, 600, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 506, 573, 552, 654, 660, 664 542, 590, 683 534, 534, 1537, 661, 662, 677, 534, 534, 1637, 661, 662, 677, 682, 694 534, 534, 657, 661, 662, 677, 682, 694
Daytron Dimensia DISH DDISH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Figher Fujitsu	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 645, 650 742 566, 620 501, 627, 652 501, 627, 652 722 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 655, 657, 658, 659, 660, 661, 662, 667, 658, 666, 667, 669, 670, 677, 679, 682, 632, 634, 506, 573, 652, 654, 660, 664 506, 573, 652, 654, 660, 664 504, 554, 541, 657, 661, 662, 677, 682, 694 504, 509, 650, 657, 661, 662, 677, 504, 554, 544, 630, 644 508, 509, 543, 544, 630, 645, 577,
Daytron Dimensia DISH DiSH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Fujitsu Funai	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 634, 664, 665, 670, 672, 674, 644, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 674, 652, 654, 658, 665, 670, 672 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 660, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 662, 660, 665, 667, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 662, 664, 655, 657, 658, 659, 660, 661, 662, 667, 698, 659, 660, 661, 662, 665, 666, 659, 660, 661, 662, 665, 666, 659, 660, 670, 679, 682, 639, 260, 671, 662, 667, 663, 652, 654, 655, 666, 666, 654, 550, 653, 534, 542, 590, 683 534, 542, 694 534, 541, 657, 661, 662, 677, 534, 544, 630, 645, 534, 544, 630, 544, 630, 645,
Daytron Dimensia DISH DiSH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Fujitsu Funai	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 653, 664, 665, 670, 672, 674, 684, 688, 719, 727 526, 627, 652, 654, 658, 665, 670, 672, 674, 665 645, 650 742 566, 620 501, 652, 651, 652, 654, 656, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 666, 670, 709, 728 526, 534, 535, 536, 537, 538, 537, 538, 537, 538, 537, 538, 539, 541, 573, 539, 627, 636, 642, 652, 654, 655, 656, 657, 658, 659, 667, 669, 670, 677, 679, 682, 699, 670, 677, 679, 682, 699, 670, 677, 679, 682, 694 534, 534, 534, 534, 534, 534, 534, 534,
Daytron Dimensia DISH DiSH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Fujitsu Funai	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 634, 664, 665, 670, 672, 674, 644, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 674, 652, 654, 658, 665, 670, 672 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 660, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 662, 660, 665, 667, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 662, 664, 655, 657, 658, 659, 660, 661, 662, 667, 698, 659, 660, 661, 662, 665, 666, 659, 660, 661, 662, 665, 666, 659, 660, 670, 679, 682, 639, 260, 671, 662, 667, 663, 652, 654, 655, 666, 666, 654, 550, 653, 534, 542, 590, 683 534, 542, 694 534, 541, 657, 661, 662, 677, 534, 544, 630, 645, 534, 544, 630, 544, 630, 645,
Daytron Dimensia DISH DiSH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Fujitsu Funai	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 653, 664, 665, 670, 672, 674, 684, 688, 719, 727 526, 627, 652, 654, 658, 665, 670, 672, 674, 665 645, 650 742 566, 620 501, 652, 651, 652, 654, 656, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 666, 670, 709, 728 526, 534, 535, 536, 537, 538, 537, 538, 537, 538, 537, 538, 539, 541, 573, 539, 627, 636, 642, 652, 654, 655, 656, 657, 658, 659, 667, 669, 670, 677, 679, 682, 699, 670, 677, 679, 682, 699, 670, 677, 679, 682, 694 534, 534, 534, 534, 534, 534, 534, 534,
Daytron Dimensia DISH DiSH Dumont Echostar Electrohome Emerson Emerson Envision Fisher Fujitsu Funai	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 663, 664, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 684, 665, 670, 672, 674, 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 656, 659, 660, 665, 670, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 580, 627, 636, 642, 652, 654, 655, 657, 668, 659, 660, 661, 662, 667, 668, 6664, 542, 590, 683 534, 541, 657, 661, 662, 677, 534, 541, 657, 661, 662, 677, 534, 541, 657, 661, 662, 677, 534, 541, 657, 661, 662, 677, 534, 541, 657, 661, 662, 677, 534, 541, 657, 661, 662, 677, 534, 541, 657, 661, 662, 677, 632, 694 533, 539, 543, 544, 630, 645, 534, 534, 543, 544, 630, 645, 534, 543, 544, 630
Daytron Dimensia DISH DISH Dixi Dumont Echostar Electrohome Emerson Envision Fisher Fujitsu Funai GE	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 644, 698, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 674, 665, 670, 672, 674, 645, 660 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 660, 501, 709, 728 526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 662, 664, 655, 667, 709, 728 526, 554, 355, 536, 537, 538, 539, 541, 573, 580, 627, 636, 642, 662, 664, 665, 666, 664 542, 590, 683 534, 541, 657, 651, 662, 677, 682, 534, 541, 657, 661, 662, 677, 534, 544, 630, 645, 534, 544, 650, 651, 652, 654, 659, 534, 544, 650, 651, 652, 654, 659, 534, 554, 554, 554, 554, 559, 535, 533, 534, 544, 630, 645, 534, 562, 654, 656, 666, 535, 533, 534, 544, 630, 645, 534, 544, 650, 651, 652, 654, 659, 636, 656, 667, 668, 670, 637, 658, 650, 651, 652, 752, 728, 742 536, 523, 526, 545, 546, 566,
Daytron Dimensia DISH DISH Dixi Dumont Echostar Electrohome Emerson Envision Fisher Fujitsu Funai GE	667, 688, 670, 680, 703, 708 505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 669, 633, 664, 665, 670, 672, 674, 634, 664, 665, 670, 672, 674, 634, 664, 665, 670, 672, 674, 644, 688, 719, 727 526, 627, 652, 654, 658, 665, 670, 672 645, 650 742 566, 620 501, 627, 652 722 526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728 526, 554, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 652, 654, 656, 657, 658, 659, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 632, 694 534, 541, 657, 661, 662, 677, 534, 542, 590, 683 534, 682, 694 534, 541, 657, 661, 662, 677, 534, 682, 694 534, 543, 544, 630, 645, 534, 543, 544, 630, 645, 534, 562, 654, 659, 666, 651, 652, 654, 659, 534, 562, 664, 650, 651, 652, 654, 659, 534, 562, 664, 650, 651, 652, 654, 659, 534, 563, 543, 544, 530, 645,

Gradiente Granada		-
	627, 670, 671 670, 673	- N
Hallmark	627, 652, 654, 659	- 1
Harman Kardon Harman/Kardon		- 0
Hinari	534	- 0
	759	- 0
Hisense Hitachi	523, 526, 548, 549, 553, 554,	- 0
nildulli		P
	555, 585, 597, 626, 636, 638, 643, 648, 652, 654, 655, 665,	
	668, 669, 670, 672, 673, 702,	
Infinity	718, 726 566, 671	- _ <u>P</u>
JBL	566, 671	- "
JC Penney	505, 506, 516, 525, 526, 543,	-11
JOTEIIICy	546, 631, 645, 646, 650, 652,	
	653, 654, 658, 659, 664, 667,	
	668, 670, 673, 676, 678, 680,	P
	690, 691, 725, 726, 728, 730,	11.
	736, 737	P
JCPenney	701	- "
Jensen	556, 573, 652, 654, 660	- P
JVC	508, 557, 559, 642, 649, 655,	- '
010	667, 673, 676, 726, 735	P
Kawasho	548, 561, 573, 652, 654, 664	- P
Kenwood	506, 573, 652, 654, 656, 659,	- P
Nonnood	660, 664, 679, 681	11.
Kloss Novabeam		- P
Konka	753	-11.
KTV	526, 539, 541, 573, 657, 658,	-
	661, 662, 664, 665, 670, 696,	Q
Lloyds	627, 679	- ~
Loewe	566	
Logik	675	- ``
Luxman	523, 652, 654,	
LXI	563, 566, 590, 595, 617, 631,	- ``
	635, 645, 646, 650, 654, 659,	B
	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,	R
	729	R
Majestic	675	- s
Marantz	506, 566, 573, 652, 654, 660,	-
	664, 665, 671	Ī
Megatron	627, 654	S
Memorex	590, 627, 653, 654, 659, 675	
	720	
MGA	504, 505, 506, 542, 571, 573,	
	627, 652, 653, 654, 656, 660,	
	728	S
Mitsibushi	573	<u> </u>]
Mitsubishi	504, 505, 542, 570, 571, 572,	- <u>s</u>
	597, 623, 627, 652, 653, 654,	S
	656, 659, 660, 664, 665, 670,	
	671, 705, 728	_ _
Mitsui	769	S
Montgomery Ward	675	
Motorola	521, 605, 651	
MTC	505, 506, 516, 523, 573, 627,	
	652, 653, 654, 659, 664, 667,	
	672, 680	S
Multitech	657	
NAD	502, 617, 627, 631, 635, 637,	
	654	S
National	509	S
NEC	505, 506, 507, 517, 523, 573,	S

	627, 651, 652, 653, 654, 660,
Nikkai	664, 665, 679, 731, 732 612
Nikko	654, 672, 727
Onwa	541, 657, 661
Optimus	637
Optonica	521, 605, 607
Orion	694
Osaki	612
Panasonic	508, 509, 510, 512, 566, 644,
ranasonio	651, 662, 663, 668, 672, 673,
	676, 685, 689, 698, 700, 716,
	734, 747, 761, 765
Philco	505, 506, 525, 536, 568, 573,
	610, 651, 652, 653, 654, 655,
	656, 659, 660, 664, 665, 666,
	669, 671, 672, 674, 677, 723,
	724, 729
Philips	525, 566, 651, 652, 655, 656,
	671, 690, 723, 724, 729, 770
Pioneer	502, 548, 576, 636, 637, 648,
	652, 654, 663, 665, 681, 708
Portland	505, 526, 573, 652, 654, 658,
	659, 664, 665, 670, 727
Price Club	680
Prism	676
Proscan	645, 646, 650, 668, 691, 725,
	742
Proton	513, 519, 526, 536, 585, 627,
	652, 654, 655, 659, 660, 665,
	666, 668, 670
Quasar	508, 509, 651, 663, 673, 676,
	698, 700, 747
Radio Shack	526, 541, 607, 612, 645, 661,
	662, 663, 668, 670, 698
Radio Shack/Realistic	
	657, 658, 683, 730
RCA	503, 505, 548, 586, 630, 633,
	634, 636, 641, 645, 646, 648,
	650, 651, 652, 653, 654, 656,
	661, 663, 665, 667, 668, 670,
	691, 698, 701, 708, 715, 716, 705, 749
Dealiatia	725, 742
Realistic	590, 645 501
Runco	506, 519, 652, 654, 658, 663,
Sampo	
Sansui	664, 665, 698, 730, 746 754
Samsung	505, 506, 516, 523, 526, 566,
ournoung	573, 612, 627, 647, 652, 653,
	654, 655, 656, 658, 659, 664,
	665, 667, 669, 670, 679, 680,
	704, 717, 730, 738, 755
Sanyo	542, 590, 652, 683
SBR	566
Schneider	566
Scott	526, 534, 537, 541, 600, 652,
	654, 655, 657, 661, 662, 665,
Sears	670, 677, 682, 696, 701 523, 534, 542, 563, 590, 595,
	601, 604, 617, 627, 631, 635,
	645, 646, 650, 652, 654, 656,
	659, 661, 668, 670, 682, 683,
	688, 691, 703, 725, 726
Sharp	521, 526, 585, 605, 607, 628,
- P	629, 652, 654, 655, 658, 669,
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	670, 674, 679, 739, 740, 741
Signature	670, 674, 679, 739, 740, 741 675
Signature Solavox	

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DEVICE CODES FOR PROGRAMMING THE REMOTE

On and a start	FOF FOC F41 CO7 CF0 CF4
Soundesign	525, 536, 541, 627, 652, 654,
0	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, 756, 764
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
Teknika	504, 505, 512, 516, 523, 524,
	525, 526, 534, 536, 541, 573,
	644, 652, 653, 654, 655, 657,
	658, 661, 662, 664, 665, 666,
	670, 672, 675, 680, 682, 685,
	726, 727
Telefunken	679
Toshiba	516, 590, 617, 631, 637, 667,
	680, 683, 688, 750
Totevision	526, 658, 668
Ultra	672
Universal	543, 690
Vector Research	506
Video Concepts	570, 661
Viewsonic	760
Wards	536, 573, 607, 650, 652, 653,
	654, 656, 659, 664, 665, 666,
	667, 668, 669, 674, 675, 677,
	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

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A1	500,000,000
Aiwa	588, 622, 623
Akai	513, 514, 515, 516, 517, 518,
	520, 568, 682
Alba	546
Amstrad	588
ASA	556
Audiovox	676
Bell&Howell	581
Broksonic	559, 748
Bush	589
Calix	676
Canon	554, 678, 679
Capehart	546
CCE	681
Citizen	534, 591, 592, 594, 675, 676,
	677
Colortyme	592
Craig	591, 608, 675, 676, 681, 685
CurtisMathes	554, 592, 594, 605, 607, 675,
	677, 678, 679
Daewoo	506, 534, 546, 547, 559, 588
Dayton	546
Denon	686
Dimensia	607
Dumont	549
Electrohome	512, 676
Emerson	505, 506, 508, 509, 511, 512,
	534, 559, 568, 588, 590, 618,
	676, 678, 687
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Finlandia Finlux	549
Finiux Fisher	549, 556, 588 548, 549, 581, 584, 588, 608
131101	610, 549, 561, 564, 566, 606
Fuji	678
Funai	588
Garrard	588
GE	550, 551, 552, 554, 572, 591
-	605, 607, 675, 678, 679
Go Video	557, 558, 620, 685 592, 594, 676, 687
Goldstar	
Goodmans	585, 589
Gradiente	588
Granada	549, 581
Grundig Harman Kardon	556 568, 592
Harwood	681
Hinari	589
Hitachi	536, 538, 539, 540, 588, 595
	597, 680, 682, 686
IT	518
JC Penney	554, 581, 591, 592, 594, 595
2	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
_ogik	589, 681, 685
_uxor _XI	518
	676 685
Magnasonic Magnavox	527, 533, 554, 556, 678, 679
νιαγιιανυλ	527, 533, 554, 556, 678, 679 685
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
MGA	512, 567, 568
Minolta	595, 680, 686
Vitsubishi	512, 562, 567, 568, 570, 571
	595, 680
Viotorola	678
VITC	544, 588, 675, 685
Aultitech	579, 588, 675, 677, 681
VAD	573
NEC	562, 581, 592, 594, 600, 602
Vikko	674, 677, 682, 683 676
Vikko Voblex	675
vobiex Dlympus	678
Diyrripus Optimus	676
)pumus)ptonica	585
)rion	506
Panasonic	523, 554, 598, 614, 628, 633
	678, 679, 685, 747
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, 747
Radio Shack	512, 607, 608, 610
Radio Shack/Realistic	581, 584, 588, 608, 675, 676,
	678, 679
Radix	676
RCA	518, 525, 527, 528, 591, 595,
NUA	605, 607, 615, 631, 649, 675,
Realistic	678, 680, 686 534, 549, 554, 581, 584, 585,
Realistic	
D	588, 608, 675, 678, 679
Ricoh	502
Runco	533
Saisho	506
Salora	567, 581
Samsung	515, 517, 534, 579, 591, 675,
	755
Sansui	544, 562, 600, 674, 682, 685
Sanyo	549, 581, 582, 583, 608, 675
SBR	556
Schneider	589
Scott	508, 534, 559, 590
Sears	548, 549, 581, 584, 595, 608,
	610, 676, 678, 680, 683, 686
Sentra	546
Sharp	512, 585, 607, 625
Shintom	589, 595, 681, 685
Singer	678, 681, 685
Sonv	500, 501, 502, 504
STS	678
Sylvania	554, 556, 567, 588, 678, 679,
Oyivania	756
Symphonic	588, 594, 683
Tandy	581, 588
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
Totevision	591, 675, 676
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
XR-1000	588, 678, 681
Yamaha	581, 592, 594, 600, 674, 682,
	683
Zenith	500, 501, 533, 747

Codes



DEVICE CODES FOR PROGRAMMING THE REMOTE

TV/VCR Codes

748

747

747

640

Broksonic

Goldstar

Panasonic

Precision

Tuner/Amplifier Codes

Precision	640
Quasar	747
Samsung	755
Sylvania	756
Zenith	747
DVD Player	Codes
Aiwa	634
Alpine	653
Apex	654, 655, 743, 744, 757
Bose	758
Broksonic	656
Clarion	696
Classic	695
Daewoo	657
Emerson	658, 701
Fisher	659
Funai	658
GE	702, 703
Go Video	692, 693
GPX	704
Hitachi	632, 635, 660, 705, 706, 707
JVC	636, 689, 708, 711
Konka	637, 638, 753
Magnavox	626, 661
Mitsubishi	629, 767
Panasonic	639, 662, 663, 714, 715, 716,
	717, 734, 765
Philips	640, 641, 766
Pioneer	665, 718, 719
RCA	627, 650, 666, 690, 742, 749
Samsung	651, 652, 667, 668, 691, 740,
	741
Sanyo	643, 726
Sharp	669, 727, 746
Sony	617, 644, 645, 670, 671, 729,
-	730, 731
Sylvania	658, 764
Teac	732
Technics	733
Techwood	664
Toshiba	616, 646, 647, 672, 735, 736,
	750
Zenith	648, 673

Aiwa	634, 641, 656, 687, 718, 720,
	724, 725, 726
Bose	761
Carver	653
Citizen	709
Curtis Mathes	734
Denon	647, 674, 757, 758, 759, 760,
	762
Fisher	653, 741
GE	711
Goldstar	677, 690
Harmon Kardon	640, 672, 751
Hitachi	717, 754
JVC	637, 683, 703, 725
Kenwood	649, 676, 691, 726, 728, 745
Magnavox	654, 705, 740
Marantz	651, 740, 742, 743
NAD	739
Nakamichi	671, 748, 750
NEC	716, 739
Onyo	642, 660, 662, 678
Optimus	648, 664, 734, 744, 749
Panasonic	643, 644, 652, 742, 746
Pioneer	658, 667, 668, 679, 702, 734
Proton	654, 705
Quasar	652, 742, 746
Radio Shack	744
RCA	635, 638, 704, 727
Sansui	753
Sanyo	741
Sharp	712, 713, 714, 715, 749
Sherwood	646, 670, 736, 738, 744
Sony	639, 645, 650, 687, 728, 729,
-	730
Soundmatters	763
Teac	684, 737
Technics	643, 644, 652, 742, 746
Toshiba	710
Yamaha	663, 730, 731, 732, 733, 745,
	747

VCR/DVD Combo

l	Go Video	692, 693	
1	JVC	689	
1	RCA	690	
	Samsung	667, 691	
Τ.			

TV/DVD Combo

Aiwa	751	
Apex	757	
Broksonic	752	
Konka	753	
Panasonic	734, 765	
RCA	749	
Sansui	754	
Sylvania	764	
Toshiba	750	

Notes