For all your customer needs, call the Customer Service Center at 1-800-333-DISH(3474)

IR-to-UHF Pro Upgrade Kit
user's guide

DISH NETWORK

IR-to-UHF Pro

135331

DISH NETWORK

WARNING AND ATTENTION SYMBOLS

You *must* be aware of safety when you install and use this system. This *User Guide* provides various procedures. If you do some of these procedures carelessly, you could *injure* or *kill* yourself or damage equipment or property. Some other procedures require special attention.

The **WARNING!** symbol means that if you are not careful:

You could *injure* or *kill* yourself, or
You could damage equipment or property.

The **ATTENTION!** symbol means you should pay special attention to:

Important instructions for using the system, or
Important instructions for maintaining the system.

The Class II Symbol alerts qualified service personnel to use only identical replacement parts in this apparatus.

FOR YOUR SAFETY

Do *not* try to open the case of the receiver. There is risk of electrical shock, which may cause damage to the receiver and/or personal injury or death to you. There are *no* user-serviceable parts inside the receiver. Opening the receiver case or making unauthorized changes will void the warranty.
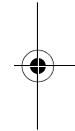
To reduce the risk of fire or electric shock, do *not* expose this appliance to rain or moisture.
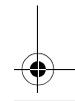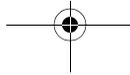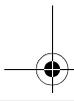
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SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
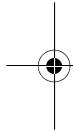
Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

INSTALLATION

Observe Warnings: Carefully follow all warnings on the device and in the operating instructions.

Heat: DO NOT place the device near heat sources such as radiators, stoves, heat registers, or other appliances that produce heat.

CARE AND USE

Cleaning: DO NOT use liquid, abrasive, solvent, or aerosol cleaners. Use a damp cloth for cleaning.

When Not in Use: Remove the batteries if this device is to be left unattended or unused for a long period of time.

Refer servicing to qualified personnel when a solid object or liquid has fallen onto or into the device.

DO NOT attempt to service this device. Refer all servicing to qualified personnel. Opening covers other than the battery cover will void the warranty.

2
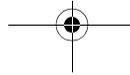
INTRODUCTION

The IR-to-UHF Pro Upgrade Kit lets you use an ultra-high frequency (UHF) remote to control an infrared (IR) DISH Network satellite TV receiver from much farther away than with an IR remote control, even through walls that block IR signals.

Note: The remote control/converter combination included in this kit works only with compatible DIS H Network receivers, and is not for any other devices. Compatible DISH Network receivers include all models except Model 7100/7200 (DISHPlayer), Model HM-DSR100RU (JVC-DVHS), Model 2000, Model 4000, and Model 5000. The UHF Pro remote can control other devices (a TV, for example) at short distances because it sends IR signals to such devices.

After you set up the kit, when you press any button on the UHF Pro remote control, the remote control sends a UHF signal to the converter.
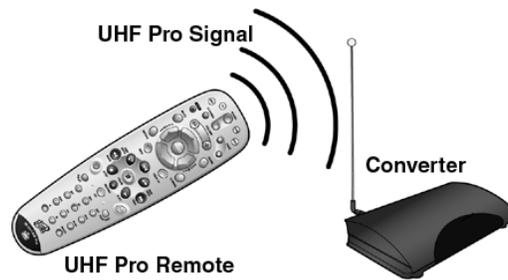

Figure 1. UHF Pro Remote Control sends signals to the Converter

Because the UHF signal can go through walls and other objects on its way to the converter, you can use the UHF Pro remote control in any room.
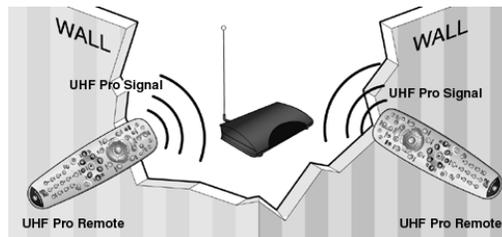

Figure 2. UHF Pro signals go through walls and other objects

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The converter gets the UHF signal, changes it to IR, and sends the IR signal to the receiver. The best way to get the IR signal to the receiver is with the IR extender cable because the signal doesn't have to go through the air, but you can also use just the converter to send the signal to the receiver (see the example in Figure 3).
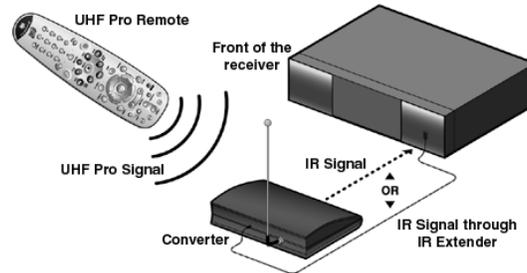

Figure 3. The Converter changes the UHF Pro signals to IR to control the receiver

The remote control that comes with the kit gives you easy access to all the features of a DISH Network satellite TV receiver. You can set up the remote to control the satellite TV receiver and up to three other devices. These devices can be a TV, a VCR or DVD player, and a third device. To control these devices, they must be in the same room as the remote control.

Note: This remote control may have more features than what your satellite receiver supports. See your receiver user's guide for information.

The remote control included with this kit uses only UHF radio signals to control the satellite receiver but uses IR to control other devices.

- UHF signals usually travel long distances (200 feet in open air) and can go through walls and other solid objects. You don't have to point a UHF Pro remote control toward the receiver, because UHF signals spread out in all directions.

- IR signals usually travel only short distances (40 feet or less), and can't go through walls or other solid objects. You must point an IR remote control toward the device, because IR signals travel in straight lines. There can't be any objects that block the signal path.

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SETTING UP THE KIT

The kit includes a UHF Pro remote control, batteries, an IR extender cable, an IR clip, an AC adapter, a converter, and a UHF antenna.
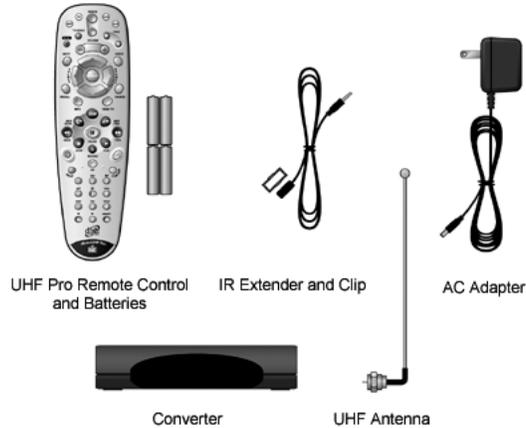
Figure 4. Parts of the IR-to-UHF Pro Upgrade Kit

SETTING UP THE SIGNAL CONVERTER

1. Make sure you fully install the satellite TV system. See the satellite receiver's *User Guide*.
2. Select a location for the converter that has access to a 110 V power outlet and is close enough for the IR extender cable to reach the satellite receiver.
3. Refer to Figure 5 to complete steps a through d.

Figure 5. Converter Back Panel

a. Attach the antenna to the **REMOTE ANTENNA** on the back of the converter. You may need to move the antenna around to find where it works best.

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Tighten the connection only by hand. If you use a wrench, you may over-tighten the connection and damage your equipment. Such damage is not covered by the Limited Warranty.

b. Make sure the REMOTE KEY switch matches the UHF Pro key at the bottom of the remote. If the switch setting does not match the key or if you'd like to change these settings, see *Changing Frequencies* on page 31.

c. Plug in the IR extender cable to the **IR EXTENDER** connection on the back of the converter.

d. Plug in the AC adapter to the **POWER** connection on the back of the converter.

4. Refer to Figures 6 and 7 to place the IR extender's IR head directly in front of the receiver's front panel IR sensor. The sensor may be in an egg-shaped dimple in the front panel, or behind a lens (the IR signal goes through the panel lens).

Note: The IR extender cable is the best way to get the IR signal from the converter to the receiver because the signal doesn't have to go through the air.
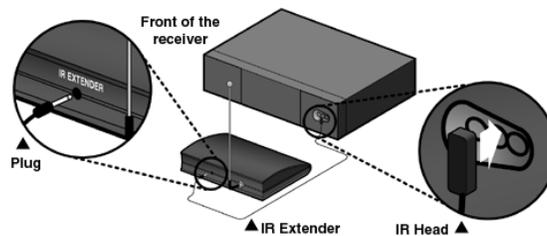
Figure 6. IR Sensor in an egg-shaped dimple

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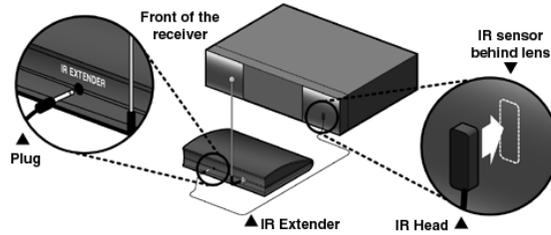
Figure 7. IR Sensor behind a lens

5. To secure the IR head, peel the paper off the strip of tape on the head (the IR signal goes through the tape), and stick the head into place.

6. *For DISH Player-DVR 522* and *DISH Player-DVR 625,* place the IR head about ¼" from the left side of the front panel lens.
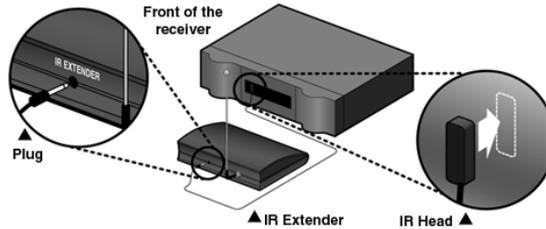
Figure 8. DISH Player-DVR 522 IR sensor

7. *For DISH 301, DISH 311, DISH 322 receivers*, you can use the IR head clip to set up the IR extender cable.
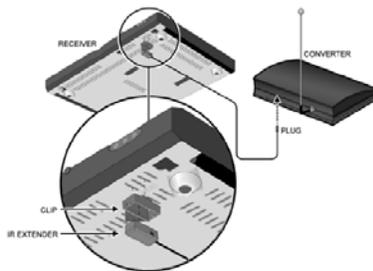
Figure 9. Attach the IR Extender Head to the receiver's bottom panel

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a. Attach the IR head clip to the receiver's bottom panel, on the grate directly behind the front panel's IR sensor. You *must* center the clip on the second slot from the left. There is a **CLIP** label on the bottom panel of some DISH 301, DISH 311, and DISH 322 receivers.

b. Fit the IR head into the IR head clip, and route the IR extender cable out through the clip's slot.

8. Route the IR extender cable under the back of the receiver, to the converter.

9. You can also use just the converter to send the signal through the air to the receiver.
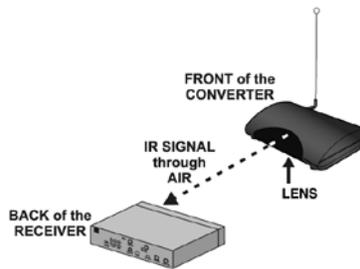
Figure 9. UHF Pro signals are converted to IR and sent through the air to the receiver

a. Make sure you put the converter no more than 20 feet away from the receiver, and that the converter has a clear signal path to the receiver.

b. Make sure the lens of the converter points toward the receiver's front panel.

10. Plug the power cord into a wall outlet.

11. Press any button on the remote control. A red light on the converter turns on whenever it receives a signal from the remote control.

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SETTING UP THE REMOTE CONTROL

INSTALLING BATTERIES

The remote control requires AAA batteries. When you replace old batteries, you should replace *all* of the batteries. Use batteries of the same kind, *for example*, alkaline or carbon zinc, and *don't* mix batteries of different kinds. Alkaline batteries last longer.

1. Press down on the battery cover and slide the cover off.

2. If you are replacing batteries, take out all of the old batteries.

3. Put the new batteries in. Make sure you match the plus ("+") ends with the plus markings on the battery case.

4. Slide the cover back into place.

SETTING UP TO CONTROL THE RECEIVER

The remote and the receiver must be set up on the same address so that the remote can control the receiver. When you get the kit, the remote is set up to control the receiver on address 1. However, your receiver may be set to a different address. There are two ways to set up the remote and receiver to work together on the same address. One way is to simply use the address from the existing IR remote control. If you do not have the existing IR remote control, use *Changing the Receiver and Remote Control Addresses* on page 10.

1. On the existing remote control, press and hold the SAT mode button for three seconds until all mode buttons light. Then, let go.

2. Press the POUND (#) button twice while watching the SAT mode button.

3. Count the number of times the SAT mode button flashes. This number is the remote address. For example, if the SAT mode button flashes 6 times, this indicates the remote address is set to 6.

   Write the number here: _____

   Note: If using more than one UHF Pro remote control in your house, make sure that the remote controls are set to different addresses from each other.

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4. On the UHF Pro remote control that came with the kit, press and hold the SAT mode button for three seconds until all mode buttons light. Then, let go.

5. Use the NUMBER PAD buttons to enter the number you wrote in step 3.

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

USING THE REMOTE CONTROL

After you have installed the converter and set up your UHF Pro remote control, make sure that the remote can control your receiver in the same room and also from other places where you want to use the remote control. If the remote cannot control the receiver, see *Troubleshooting the Kit* on page 42.

REMOTE CONTROL OPERATION

This section describes how to use the remote control that came with the kit.

CHANGING THE RECEIVER AND REMOTE CONTROL ADDRESSES

1. Open the **System Information** screen. Consult your receiver user's guide for instructions on how to open this screen without using the remote control. The **System Information** screen will show either one **Remote Address**, or it may show a **Primary Remote Address** and a **Secondary Remote Address**.

   Note: On the DISH Player-DVR 522 and DISH 322, program the remote control on TV1 only.

2. Press and hold the SAT mode button about three seconds, until all the mode buttons light up, and then let go of the SAT button. The SAT mode button will blink.

3. Use the NUMBER PAD buttons to enter any number from 1 to 16. The SAT mode button goes out after you enter each digit, and then lights up again.

   Write down the number you entered: _____

   Note: If using more than one UHF Pro remote control in your house, make sure that the remote controls are set to different addresses from each other.

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

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5. Press the RECORD button.

6. Make sure the **System Information** screen shows the address number you entered in step 3.

7. Close the **System Information** screen. On most receivers, this is done by selecting **Done**. See your receiver user's guide for more information.

CHECKING THE REMOTE CONTROL ADDRESS

To check the remote control address setting:

1. Press and hold the SAT mode button for three seconds until all mode buttons light. Then, let go.

2. Press the POUND (#) button twice while watching the SAT mode button.

3. Count the number of times the SAT mode button flashes. This number is the remote address. For example, if the SAT mode button flashes 6 times, this indicates the remote address is set to 6.

SETTING UP TO CONTROL OTHER DEVICES

To use the remote to control other devices (such as a TV, VCR, DVD player, tuner/amplifier, or a second DISH Network satellite receiver), you must first program it to control these other devices. You can do this by either following the instructions in *Setting Up Using Device Code Tables* on page 12, or the *Setting Up Using Device Codes Scan* procedure described on page 13.

COMBINATION DEVICES

If you are programming the remote to control a combination device, such as a TV/VCR or a TV/DVD, program the remote control in one mode, and then repeat the procedure in the other mode. For example, to program the remote to control a TV/VCR using code 748, follow the instructions to program the remote to control the TV using code 748, and then repeat the instructions for the VCR using the same code.

LIMITED MODE

You can program your remote control in Limited Mode to keep from accidentally changing the channel on your TV or VCR. When you use the remote to control your TV in Limited Mode, you will only be able to use the POWER, MUTE, and VOLUME buttons to control your TV.

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Also, when you use the remote to control your VCR in Limited Mode, you will only be able to use the POWER and VCR function buttons. The section *Setting Up Using Device Codes Tables* has a step that tells the remote control to go into Limited Mode.

Note: Limited Mode can not be used with audio amplifiers.

SETTING UP USING DEVICE CODE TABLES

You can set up the remote to control other devices using the device codes listed on page 33.

1. Use the device's buttons or its remote control to turn on the device.

2. Find the brand name of the device in the tables starting on page 33.

   If the brand isn't listed, see *Setting Up Using Device Codes Scan* on page 13.

3. Press and hold the mode button for the device you want the remote to control, for about three seconds. When all the other mode buttons light up, let go of the mode button - that mode button should now be flashing.

   For example, hold the TV mode button for a TV until all of the other mode buttons light. When you let go, the TV mode light will flash.

4. *Only for the AUX mode*, Use a number button to enter 0 for a second TV, or 1 for a second VCR or DVD player, or 2 for a tuner or amplifier.

5. Use the number buttons to enter one of the device codes from the table.

6. Only for Limited Mode, Press 1.

   Note: Skip this step if you do not want to use Limited Mode.

7. Press the POUND (#) button. If you entered the code correctly, the mode button flashes three times.

8. Press the blank POWER button to test if the code works for the device. If it does, the device should turn off.

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9. Turn the device back on and try some other buttons to make sure they work. Sometimes, the blank POWER button works when other buttons don't. If the code works for other buttons, *stop here*.

10. If the code you entered *doesn't* work, do steps 3 through 9 *again* with another device code from the tables.

11. If you cannot find a code that works, try *Setting Up Using Device Code Scan*.

SETTING UP USING DEVICE CODE SCAN

If the code for your device is not listed in the tables starting on page 33, use this procedure to scan the remote control's memory for the device code.

1. Use the device's buttons or its remote control to turn the device on.

2. Press and hold the mode button for the device you want the remote to control, for about three seconds. When all the other mode buttons light up, let go of the mode button - that mode button should now be flashing.

   For example, hold the TV mode button for a TV until all of the other mode buttons light. When you let go, the TV mode light will flash.

3. *Only for the* AUX *mode*, use the number buttons to enter 0 for a second TV, 1 for a second VCR or DVD player, or 2 for a tuner or amplifier. Then press the STAR (*) button.

4. Press the blank POWER button.

5. Press the up or down arrow button until the device turns off. You will have to do this repeatedly to scan through all codes.
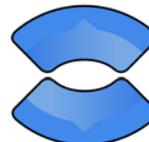
   Note: The mode button for the device will flash rapidly eight times when you've scanned all the codes for that device.

6. If the remote reaches the correct code, the device turns off. When this happens, press the POUND (#) button to store the code in the remote.

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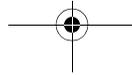
7. Press the blank POWER button to turn the device back on.

8. Try some other buttons to make sure they work. Sometimes, the blank POWER button works when other buttons don't.

PROGRAMMING THE REMOTE TO CONTROL A SECOND SATELLITE RECEIVER

If you have another DISH Network satellite receiver installed, you can use this remote in AUX mode to control the second receiver. You can program the remote to control any other DISH Network satellite receiver, except for following:

• DISH 322 - TV2

• DISH Player-DVR 522 - TV2

• DishPlayer 7100/7200

1. Turn on the other receiver and display the **System Info** screen (see the user's guide for information on how to display the screen).

   Write the address: _____

2. Press and hold AUX until all the other mode buttons light up, and then let go of the button. AUX flashes.

3. Press the 3 button.

4. Use the NUMBER PAD to enter the address you wrote in step 1.

5. Press POUND (#). AUX blinks three times.

6. Press RECORD to make sure the address and the remote matches the address on the receiver

CHECKING THE DEVICE CODES

You can find out what device code you've set for each remote control mode.

1. Press and hold the mode button for the device you want the remote to control, for about three seconds. When all the other mode buttons light up, let go of the mode button - that mode button should now be flashing.

   For example, hold the TV mode button for a TV until all of the other mode buttons light. When you let go, the TV mode light will flash.

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2. Press the POUND (#) button *twice*. The mode button
   flashes the number for each digit of the device code, with
   a pause between the groups of flashes. A quick flash is for
   zero. For example, if the code is 570, the mode button
   flashes five times, pauses, flashes seven times, pauses, and flashes
   once quickly.

   For AUX mode, the first group of flashes tells you what the AUX
   mode controls. A quick flash (zero) before the three-digit code is
   for a TV; one regular flash is for a VCR or DVD player; and two
   flashes is for a tuner or amplifier. For example, if the TV code is
   570, the AUX mode button flashes once quickly, pauses, flashes
   five times, pauses, flashes seven times, pauses, and flashes once
   quickly.

SWITCHING BETWEEN TV AND DEVICE VOLUME CONTROL

When you set up the remote to control a TV, the MUTE and VOLUME
buttons control the TV volume. However, if you want to use the AUX
mode to control a tuner or amplifier and the device has a volume
setting, you can set up the remote to control the device's volume
instead of the TV volume.

To set the remote to control the device's volume:

1. Press and hold the AUX mode button
   for three seconds, and then let go of it. The AUX mode
   button will blink.

2. Press the POUND (#) button.

3. Press the plus (+) side of the VOLUME
   button.

4. Press the 0 number button.

5. Press the POUND (#) button.
   The AUX mode button flashes three times.

6. Press the SAT mode button.

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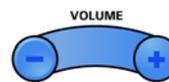
7. Press the plus (+) and minus (-) sides of the VOLUME button. The device's volume changes and the AUX mode button lights instead of the TV mode button.
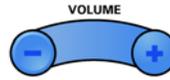
To set the remote back to control the TV volume:

1. Press and hold the TV mode button for three seconds, and then let go of it. The TV mode button will blink.

2. Press the POUND (#) button.

3. Press the plus (+) side of the VOLUME button.
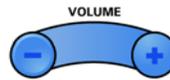
4. Press the 0 number button.

5. Press the POUND (#) button.
   The TV mode button flashes three times.

6. Press the SAT mode button.

7. Press the plus (+) and minus (-) sides of the VOLUME button. The TV's volume changes and the TV mode button lights instead of the AUX mode button.

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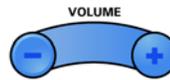
OPERATING MODES

You can set the remote to four different modes to control the receiver or other devices. You may need to change the remote address to operate the receiver. See *Setting Up to Control the Receiver* on page 9. You must set up the remote to control a device like a TV, VCR, or DVD player. See *Setting Up to Control Other Devices* on page 11.

Use the remote control's mode buttons, SAT (satellite receiver), TV (for a TV), VCR (for a VCR or a DVD player), and AUX ("auxiliary," for a second TV, a second VCR, a tuner, or an audio amplifier) to set the remote to the right mode for the device.

To change the mode, press the button for the device you want the remote to control. The mode button lights for two seconds to show you've set the remote to that mode.

CONTROLLING THE SATELLITE RECEIVER

SAT MODE BUTTON

Press this button to set the remote to SAT ("satellite") mode to control the receiver. The SAT mode button's back light stays lit for about two seconds to show you've set the remote to SAT mode. Make sure you keep the remote in SAT mode to use the following buttons.

Note: The information in this section also applies when the AUX mode button is programmed for a second satellite receiver and the remote is in AUX mode.

Note: Your satellite receiver may not provide all of the functions described as follows. Consult your receiver user's guide for the features your receiver provides.

TV/VIDEO BUTTON

If you connect the receiver with its back panel TV ANTENNA/CABLE IN and TV SET OUT ports, use this button to switch the receiver between the satellite signal (connect it to the SATELLITE IN port) and another video signal like a cable or broadcast TV antenna input (connect it to the receiver's TV ANTENNA/CABLE IN input).

Your receiver may use this button as an SD/HD INPUT button to toggle between HD and SD Output mode on high definition satellite receivers. Consult your receiver user's guide for how to use this button.

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POWER BUTTONS

Press the blank POWER button to turn the receiver on or off.

Press the TV POWER button to turn your TV off and on.

Note: You must set up the remote to control the TV for the
TV POWER button to work. See *Setting Up to Control Other
Devices* on page 11.
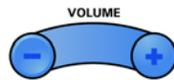
VOLUME BUTTON

Press this button to raise (+) or lower (-) the TV sound volume.

Note: You must set up the remote to control the TV for the VOLUME
button to work. See *Setting Up to Control Other Devices* on page 11.

MENU BUTTON

Press this button to open the **Main Menu**.

MUTE BUTTON

Press this button to turn the TV sound on or off.

Note: You must set up the remote to control the TV for the MUTE
button to work. See *Setting Up to Control Other Devices* on page 11.

PAGE UP AND PAGE DOWN BUTTONS

Press the PAGE UP button or the PAGE DOWN button to scan, page
by page, through the **Program Guide**, a **Themes** list, a **Favorites List**,
an **Event Timers** list, or a list of channels.

Note: An "event" is any satellite program.

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GUIDE BUTTON

Press this button to open the **Program Guide**. When you have the **Program Guide** open, press this button to change between your **Favorite Lists**.
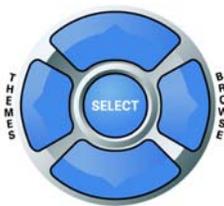
ARROW BUTTONS

- Change channels while watching a program- Press the UP or DOWN arrow button.
- Open the **Browse Banner** - Press the RIGHT arrow button.
- Show **Themes** - Press the LEFT arrow button.
- Move around within the **Program Guide**, menus, and **Browse Banner** - Press the UP, DOWN, LEFT, and RIGHT arrow buttons.
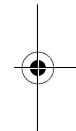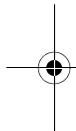
SELECT BUTTON

Press this button to select the option you highlight in a menu.

RECALL BUTTON

Press this button to go back to the last receiver channel you watched. Press it again to switch between the last two receiver channels you watched.

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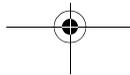
INFO BUTTON

- Program information - Press the INFO button for more information when you watch a program, or when you have the **Program Guide**, **Browse Banner**, or **Themes** list open.

- Help - Press the INFO button to see help information when a **Help** button appears in a menu.

VIEW TV BUTTON

- When you watch a program, press this button to briefly display the **Program Banner**.

- When you use a menu, press this button to cancel and go back to watching a program.

CANCEL BUTTON

Press this button to cancel and go back to the previous menu or to watching a program.

DVR BUTTONS

The following button descriptions mainly apply for remote controls used with DISH Player-DVR receivers. For a description of these buttons when controlling a VCR or DVD player, see page 27.

DVR BUTTON

Press the DVR button to open the DVR Events menu, which shows all of the DVR Events recorded on the receiver.

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PLAY BUTTON

Press the PLAY button to play back a recorded event. Also, press this button to switch from pause, fast forward, or back to normal play back.

STOP BUTTON

Press the STOP button to stop recording a program or to stop playing a recorded program.

PAUSE BUTTON

Press the PAUSE button to pause a program. Press this button again to go back to watching the program.

FWD BUTTON

Press the FWD ("forward") button to:

- Move ahead through a program four times as fast as normal play. Press this button a second time to move ahead at 15 times, a third time to move ahead at 60 times, and a fourth time to move ahead at 300 times as fast as normal play.

- Move ahead through the program in slow motion. To use this feature, press the PAUSE button and then press the FWD button. Each time you press the FWD button, the program advances faster until it reaches normal speed. If you continue to press the button, the program will advance as described in the previous paragraph.

SKIP FWD BUTTON

Press the SKIP FWD button to:

- Skip ahead about 30 seconds in a program. Press this button again to skip ahead again.

- Skip ahead one frame at a time. To use the frame advance feature, press the PAUSE button and then press the SKIP FWD button.

- Skip ahead one day at a time in the **Program Guide**.

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BACK BUTTON

Press the BACK button to:

- Move back through a program four times as fast as normal play. Press this button a second time to move back at 15 times, a third time to move back at 60 times, and a fourth time to move back at 300 times as fast as normal play.

- Move back through the program in slow motion. To use this feature, press the PAUSE button and then press the BACK button. Each time you press the BACK button, the program reverses faster until it reaches normal speed. If you continue to press the button, the program will reverse as described in the previous paragraph.

SKIP BACK BUTTON

Press the SKIP BACK button to:

- Skip back about ten seconds in a program. Press this button again to skip back again.
- Skip back a few frames at a time. To skip back through a few frames, press the PAUSE button and then press the SKIP BACK button.
- Skip back one day at a time in the **Program Guide**.

  Note: The skip back button will not skip back the **Program Guide** beyond the current date and time.

RECORD BUTTON

Press the RECORD button to record a program.

Note: You also use this button if you change the remote control address. See *Setting Up to Control the Satellite Receiver* on page 9.

PICTURE-IN-PICTURE (PIP)

Press the PIP button to open the **PIP** window. To make the **PIP** window larger, press this button again. Press the button a third time to close the **PIP** window. See your receiver user's guide for more information on using the PIP feature.

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POSITION BUTTON

Press the POSITION button to move the **PIP** window to different positions on the TV screen. Each time you press this button, the **PIP** window moves to a different position. See your receiver user's guide for more information on using the PIP feature.

SWAP BUTTON

Press the SWAP button to swap the video in the main display with the video in the **PIP** window. See your receiver user's guide for more information on using the PIP feature.

RECOVER BUTTON

Use the RECOVER button if you accidentally change the channel or video input on your TV and cannot get the picture back from your satellite receiver. When you press the RECOVER button as described in the following section, the remote control sends commands to your TV and VCR (if set up) to change channels or video inputs to try to get you back to watching satellite programming.

Note: RECOVER only works if the remote control has been set up to control the TV and/or VCR, if connected (see *Setting Up to Control Other Devices* on page 11).

This procedure works only if you have accidentally changed the TV channel or video input. It does not recover lost satellite signal (see *Troubleshooting the Kit* for troubleshooting information). The following setup is required to use the RECOVER button:

- The remote control must be set up to control the TV and, if installed, the VCR (see your satellite receiver's *User Guide* or the *Installation Instructions*).

- If a VCR is installed, make sure it is connected as shown in your satellite receiver's *User Guide*.

To use the RECOVER button, complete the following instructions:

1. Press and hold the RECOVER button until all four mode buttons light, and then let go of the button. The SAT mode button flashes twice and then all four mode buttons flash three times.

2. Press the RECOVER button. Wait for the TV or VCR mode button to flash once and then all four mode buttons to flash once.

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3. If you see the **System Info** screen, press the SELECT button to close the screen. You have recovered your satellite video.

4. If you do not see the **System Info** screen, repeat steps 2 and 3 until you have recovered your satellite video.

   Note: Press any remote control button other than the RECOVER button to end this procedure.

DISH BUTTON

Press the dish button to go to **dish home Interactive TV** for receivers that support this feature.
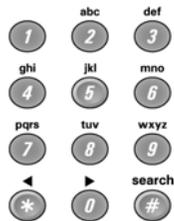
NUMBER BUTTONS

- Change the channel - Use the NUMBER buttons to enter a channel number to change the channel. If you have the **Program Guide** open, use the NUMBER buttons to jump to the channel listing on the **Program Guide**.

- Scroll through the **Program Guide** by time - When you have the **Program Guide** open, enter a number of hours using these buttons, and then press the RIGHT or LEFT arrow button to skip the **Program Guide** forward or backward that many hours.

- Enter menu options - For an option with a number, you can press the number for that option *instead* of highlighting and selecting the option.

- Enter numbers in a blank - Highlight the place where you need to enter the number. Press a number button(s) (or, you can use the UP/DOWN arrow buttons to enter the number).

  Search - Use the letters above the NUMBER buttons while in the **Search** menu. For example, when looking for the channel and times to watch *Rudy Fremmel Presents*, you press 7 three times for an R, 8 two times for a U, 3 one time for a D, and 9 three times for a Y to spell the word "Rudy" (see your receiver's user guide for more information).

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◀ ⊛ STAR BUTTON

Press the STAR button to back space while using the search function of your receiver.

A high definition satellite receiver may use this button to toggle through the available display modes (Normal, Zoom) for widescreen displays. See your receiver user's guide for more information.

search # POUND (#) BUTTON

Press the POUND button to display the **Search** screen. Also, you use this button in several procedures in this user guide.

CONTROLLING A TV (OR A SECOND TV)

Only the buttons described here control a TV. Some of the buttons described here may *not* control your TV. See your TV user's manual for information about the TV's features.

You can set up the remote to control a second TV in AUX mode, the same way it controls the first TV in TV mode. See *Setting Up to Control Other Devices* on page 11.

TV TV MODE BUTTON

You must first set up the remote to control the TV. See *Setting Up to Control Other Devices* on page 11. Then press the TV mode button to set the remote to TV mode. The TV mode button will stay lit for two seconds to show you've set the remote to TV mode. Make sure you keep the remote in TV mode to use the buttons described in this section.

TV/VIDEO TV/VIDEO BUTTON

If the TV has video input options, use this button to switch the TV video input.
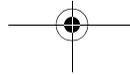
POWER BUTTONS

Press *either* POWER button to turn the TV on or off.

Note: If you set up the remote to control one TV in TV mode and an additional TV in AUX mode, pressing the TV POWER button controls *only* the TV you set up in TV mode.

MUTE BUTTON

Press this button to turn the TV sound on or off.
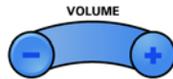
VOLUME BUTTON

Press this button to raise (+) or lower (-) the TV sound volume.
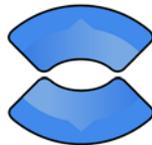
UP/DOWN ARROW BUTTONS

Use these buttons to change channels on the TV.

Note: These buttons do not change the channels on the TV if the remote control is in Limited Mode.

SELECT BUTTON

The SELECT button works as the ENTER button for a TV.

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RECALL BUTTON

Press this button to go back to the last TV channel you watched. Press it again to switch between the last two TV channels you watched.

Note: These buttons do not change the channels on the TV if the remote control is in Limited Mode.
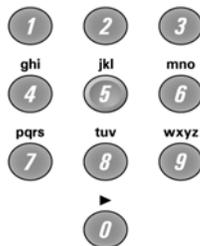
NUMBER BUTTONS

Use these buttons to directly enter a different channel.

Note: These buttons do not change the channels on the TV if the remote control is in Limited Mode.

CONTROLLING A VCR (OR A SECOND VCR OR A DVD PLAYER)

Only the buttons described here control a VCR or DVD player. Some of the buttons we tell you about here may *not* control your VCR. See your VCR or DVD player user's manual for information about the features.

You can set up the remote to control a second VCR or DVD player in AUX mode, the *same* way it controls the first VCR or DVD player in VCR mode. See *Setting Up to Control Other Devices* on page 11.

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VCR MODE BUTTON

You must first set up the remote to control the VCR or DVD player. See *Setting Up to Control Other Devices* on page 11. Then press the VCR mode button to set the remote to VCR mode. The VCR mode button will stay lit for two seconds to show you've set the remote to VCR mode. Make sure you keep the remote in VCR mode to use the buttons we tell you about here.

You must put the remote in VCR mode to set it up to control a DVD player. Put the remote in VCR mode to use it to control a DVD player.

TV/VIDEO BUTTON

Use this button to switch the VCR between its TV mode and its VCR mode (see your VCR user's manual for information).

POWER BUTTON

Press the blank POWER button to turn the VCR on or off. Press the TV POWER button to turn the TV on or off.
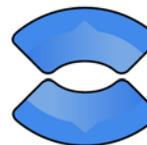
UP/DOWN ARROW BUTTONS

Use these buttons to change channels on the VCR.

Note: If you are using the remote control in Limited Mode, the VCR will not change channels.

VIEW TV BUTTON

For VCR/DVD combinations only: Press the VIEW TV button to switch between VCR and DVD functions.

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(VCR) *VCR BUTTONS*

Press the PLAY button to play a videotape or DVD.

Press the STOP button to stop playing or recording on a videotape. Press the STOP button to stop playing a DVD.

Press the PAUSE button to pause a videotape or DVD. Press this button or the PLAY button to play the tape or DVD.

Press the FWD ("forward") button to forward a videotape or DVD.

Press the BACK button to rewind a videotape or reverse a DVD.

Press the RECORD button to record on a videotape.

CONTROLLING A TUNER OR AMPLIFIER

Only the buttons described here control a tuner or amplifier. Some of the buttons described here may not control your tuner or amplifier. See the device user's manual for information.

(AUX) *AUX MODE BUTTON*

You must first set up the remote to control the device. See *Setting Up to Control Other Devices* on page 11. Then press the AUX mode button to set the remote to AUX mode. The AUX mode button will stay lit for two seconds to show you've set the remote to AUX mode. Make sure to keep the remote in AUX mode to use the following buttons.

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POWER BUTTON

Press the blank POWER button to turn the tuner or amplifier on or off. Press the TV POWER button to turn the TV on or off.

MUTE BUTTON

Press this button to turn on or off the sound.

Note: Program the remote to control the device's volume by following the instructions on page 15.
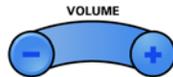
VOLUME BUTTON

Press this button to raise (**+**) or lower (**-**) the sound volume.

Note: Program the remote to control the device's volume by following the instructions in *Switching Between TV and Device Volume Control* on page 15.
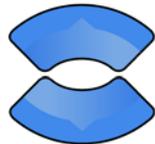
UP/DOWN ARROW BUTTONS

Use these buttons to change channels on the tuner or amplifier.

SELECT BUTTON

This button works as the INPUT SELECT button for the tuner or amplifier.

CHANGING FREQUENCIES

If you have more than one IR-to-UHF Pro Converter kit in your house, or if you think you are experiencing interference from another source (for example, another remote control), you can change the frequency of the kit. The remote control included with your kit has a switchable key at the bottom that matches the switch on the back of the converter.

Note: If using more than one UHF Pro remote control in your house, make sure that the remote controls are set to different addresses from each other.

1. Change the switch setting:
    - If set on BLACK, change the switch to SILVER.
    - If set on SILVER, change the switch to BLACK.

2. Slide the battery cover off.

3. Insert your thumbnail in the seam between the remote control and the key to separate the key from the remote control.

4. Grasp the key at the bottom and pull down firmly to remove.

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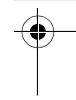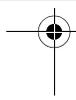
5. Turn the key over to match the setting of the switch.

6. Reinstall the key in the remote control.
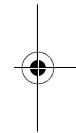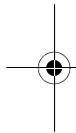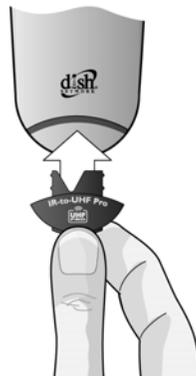
7. If you have not already installed batteries, install them now. See *Installing Batteries* for further details.

8. Slide the battery cover back into place.
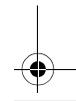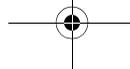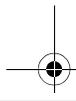
DEVICE CODES

These tables contain the manufacturer codes for programming the remote to control a 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.

TV CODES

Programming in AUX mode: Press 0 before entering the TV code.

| 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 National	509, 541, 620, 651, 657, 661, 663, 698
AOC	505, 506, 519, 520, 573, 620, 627, 652, 653, 654, 659, 664, 665, 670, 672
Apex	743, 744, 745
Archer	620
Audiovox	620, 657, 662, 672
Bell & Howell	590, 669, 675
Broksonic	659, 661, 748, 752
Capehart	519, 627
Citizen	506, 516, 523, 524, 525, 526, 590, 652, 654, 657, 658, 680, 727
Classic	659

TV	Codes
Colortyme	573, 627, 652, 654, 660, 667, 668, 671, 674, 679, 681
Contec/Cony	541, 655, 657, 661, 662, 726
Craig	536, 541, 657, 661, 662, 666, 667, 694
Crown	526, 536, 657, 666, 670
Curtis Mathes	506, 516, 526, 573, 590, 641, 645, 650, 652, 654, 658, 659, 660, 664, 665, 667, 668, 670, 674, 680, 703, 708
Daewoo	505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727
Daytron	526, 627, 652, 654, 658, 665, 670, 672
Dell	772, 773, 774
Dimensia	645, 650
DISH Network	722, 742
Dixi	566, 620
Dumont	501, 627, 652
Electrohome	526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728

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

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

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TV	Codes
Megatron	627, 654
Memorex	590, 627, 653, 654, 659, 675, 678, 720
MGA	504, 505, 506, 542, 571, 573, 627, 652, 653, 654, 656, 660, 728
Mitsubishi	504, 505, 542, 570, 571, 572, 573, 597, 623, 627, 652, 653, 654, 656, 659, 660, 664, 665, 670, 671, 705, 728
Montgomery Ward	675
Motorola	521, 605, 651
MTC	505, 506, 516, 523, 573, 627, 652, 653, 654, 659, 664, 667, 672, 680
Multitech	657
NAD	502, 617, 627, 631, 635, 637, 654
National	509
NEC	505, 506, 507, 517, 523, 573, 627, 651, 652, 653, 654, 660, 664, 665, 679, 681, 731, 732
Nikkai	612
Nikko	654, 672, 727
Onwa	541, 657, 661
Optimus	637
Optonica	521, 605, 607
Orion	694
Osaki	612
Panasonic	508, 509, 510, 512, 566, 644, 651, 662, 663, 668, 672, 673, 676, 685, 689, 698, 700, 716, 734, 747

TV	Codes
Philco	505, 506, 525, 536, 568, 573, 610, 651, 652, 653, 654, 655, 656, 659, 660, 664, 665, 666, 669, 671, 672, 674, 677, 723, 724, 729
Philips	525, 566, 651, 652, 655, 656, 671, 690, 723, 724, 729
Pioneer	502, 548, 576, 636, 637, 648, 652, 654, 663, 665, 681, 708
Portland	505, 526, 573, 652, 654, 658, 659, 664, 665, 670, 727
Price Club	680
Prism	676
Proscan	645, 646, 650, 668, 691, 725, 742
Proton	513, 519, 526, 536, 585, 627, 652, 654, 655, 659, 660, 665, 666, 668, 670, 678
Quasar	508, 509, 651, 663, 673, 676, 698, 700, 747
Radio Shack/ Realistic	526, 541, 590, 607, 612, 645, 650, 652, 654, 655, 657, 658, 661, 662, 663, 668, 670, 683, 698, 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, 681, 691, 698, 701, 708, 715, 716, 725, 742, 749
Runco	501
Sampo	506, 519, 652, 654, 658, 663, 664, 665, 698, 730, 746

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TV	Codes
Samsung	505, 506, 516, 523, 526, 566, 573, 612, 627, 647, 652, 653, 654, 655, 656, 658, 659, 664, 665, 667, 669, 670, 679, 680, 704, 717, 730, 738
Sansui	754
Sanyo	542, 590, 652, 683
SBR	566
Schneider	566
Scott	526, 534, 537, 541, 600, 652, 654, 655, 657, 661, 662, 665, 670, 677, 682, 696, 701
Sears	523, 534, 542, 563, 590, 595, 601, 604, 617, 627, 631, 635, 645, 646, 650, 652, 654, 656, 659, 661, 668, 670, 682, 683, 688, 691, 703, 725, 726
Sharp	521, 526, 585, 605, 607, 628, 629, 652, 654, 655, 658, 669, 670, 674, 679, 739, 740, 741
Signature	675
Solavox	612
Sony	500, 578, 640, 670, 690
Soundesign	525, 536, 541, 627, 652, 654, 657, 659, 661, 665, 666, 682
Starlite	657
Supra	523
Sylvania	506, 525, 536, 566, 568, 569, 573, 600, 610, 652, 654, 656, 659, 660, 664, 665, 666, 671, 672, 674, 677, 723, 724, 729, 733
Symphonic	632, 657, 662, 677, 692, 694

TV	Codes
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, 681, 682, 685, 726, 727
Telefunken	679
Toshiba	516, 590, 617, 631, 635, 667, 678, 680, 683, 688, 750, 751
Totevision	526, 658, 668
Ultra	672
Universal	543, 690
Vector, Research	506
Video Concepts	570, 661
Wards	536, 573, 607, 645, 650, 652, 653, 654, 656, 659, 664, 665, 666, 667, 668, 669, 674, 675, 677, 678, 682, 690, 715, 723, 724, 729
White, Westinghouse	659, 664, 670, 672, 674
Yamaha	505, 506, 573, 652, 653, 654, 656, 664, 666, 672, 679
Zenith	501, 520, 639, 652, 653, 654, 686, 664, 666, 672, 679

VCR CODES

Programming in AUX mode:
Press 1 before entering the VCR code.

VCR	CODES
Aiwa	588, 622, 623
Akai	513, 514, 515, 516, 517, 518, 520, 568, 682
Alba	546
Amstrad	588
ASA	556
Audiovox	676
Bell & Howell	581
Broksonic	559, 748
Bush	589
Calix	676
Canon	554, 678, 679
Capehart	546
CCE	681
Citizen	534, 591, 592, 594, 675, 676, 677, 684
Colortyme	592
Craig	591, 658, 675, 676, 681, 685, 687, 688
Curtis Mathes	554, 592, 594, 605, 607, 675, 677, 678, 679, 683, 684
Daewoo	506, 534, 546, 547, 559, 588, 684
Daytron	546
Denon	686
Dimensia	607
Dumont	549
Electrohome	512, 676, 687
Emerson	505, 506, 508, 509, 511, 512, 534, 559, 568, 588, 590, 618, 676, 678, 684, 687
Finlandia	549

VCR	CODES
Finlux	549, 556, 588
Fisher	548, 549, 581, 584, 588, 608, 610, 684, 688
Fuji	678
Funai	588
Garrard	588
GE	550, 551, 552, 554, 572, 591, 605, 607, 675, 678, 679
Go Video	557, 558, 620, 685
Goldstar	592, 594, 676, 687, 747
Goodmans	585, 589
Gradiente	588, 687
Granada	549, 581
Grundig	556
Harmon/Kardon	568, 592
Harwood	681
Hinari	589
Hitachi	536, 538, 539, 540, 588, 595, 597, 680, 682, 686
ITT	518
JC Penney	554, 581, 591, 592, 594, 595, 600, 674, 675, 676, 678, 679, 680, 681, 685, 686, 687
Jensen	595, 680, 682
JVC	561, 562, 563, 581, 592, 594, 600, 674, 682, 686
Kenwood	562, 581, 592, 594, 600, 674, 677, 682, 683
KLH	681
Kodak	676, 678
Lloyds	683, 688
Logik	589, 681, 685
Luxor	518

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VCR	CODES
LXI	676
Magnasonic	685, 687
Magnavox	527, 533, 554, 556, 678, 679, 684, 685
Marantz	554, 556, 581, 585, 592, 594, 600, 602, 674, 677, 678, 683
Matsushita	678
Memorex	507, 533, 549, 554, 566, 581, 585, 588, 608, 675, 676, 678, 686, 687, 688
MGA	512, 567, 568
Minolta	595, 680, 686
Mitsubishi	512, 562, 567, 568, 570, 571, 595, 680, 687
Motorola	678
MTC	544, 588, 675, 685
Multitech	579, 588, 675, 677, 681
NAD	573
NEC	562, 581, 592, 594, 600, 602, 674, 677, 682, 683
Nikko	676
Noblex	675
Olympus	678
Optimus	676, 687
Optonica	585
Orion	506, 684, 687
Panasonic	523, 554, 598, 614, 628, 633, 678, 679, 684, 685, 688, 747
Pentax	592, 595, 677, 680, 683, 686
Pentex Research	594
Perdio	588
Philco	554, 678, 679, 686

VCR	CODES
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, 534, 549, 554, 581, 584, 585, 588, 607, 608, 610, 675, 676, 678, 679, 687, 688
Radix	676
RCA	518, 525, 527, 528, 591, 595, 605, 607, 615, 631, 649, 675, 678, 680, 686
Ricoh	502
Runco	533
Saisho	506
Salora	567, 581
Samsung	515, 517, 534, 579, 591, 675
Sansui	544, 562, 600, 674, 682, 685
Sanyo	549, 581, 582, 583, 608, 675, 688
SBR	556
Schneider	589
Scott	508, 534, 559, 590, 684, 687
Sears	548, 549, 581, 584, 595, 608, 610, 676, 678, 680, 683, 684, 686, 687, 688
Sentra	546
Sharp	512, 585, 607, 625
Shintom	589, 595, 681, 685
Singer	678, 681, 685
Sony	500, 501, 502, 504, 768

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VCR	CODES
STS	678
Sylvania	554, 556, 567, 588, 678, 679
Symphonic	588, 594, 683, 688
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, 684, 688
Totevision	591, 675, 676, 687
Unitech	675
Vector Research	534, 592, 600, 674, 677, 683
Video Concepts	534, 568, 592, 600, 674, 677, 683
Wards	534, 588, 595, 608, 675, 676, 678, 680, 681, 684, 687, 688
XR-1000	588, 678, 681
Yamaha	581, 592, 594, 600, 674, 682, 683
Zenith	500, 501, 533, 747

TV/VCR COMBO CODES

Programming for combination devices: Program the remote control in TV mode and then in VCR mode.

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

TV/VCR	TV Codes	VCR Codes
Zenith	747	747

DVD PLAYER CODES

Programming in AUX mode: Press 1 before entering the DVD code.

DVD Players	Codes
Aiwa	634, 694, 751
Alpine	653
Apex	654, 655, 743, 744
Broksonic	656, 752
Clarion,	696
Classic	695
Daewoo	657
Denon	697, 698, 699, 700
Emerson	658, 701
Fisher	659
Funai	658
GE	702, 703
Go Video	692, 693
GPX	704
Hitachi	632, 635, 660, 705, 706, 707
JVC	636, 689, 708, 711
Konka	637, 638, 753
Koss	745
Magnavox	626, 661
Memorex	709
Mintek	710
Mitsubishi	629
NAD	701
Norcent	762
Onkyo	713
Oritron	723

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

DVD/VCR COMBO CODES

Programming for combination devices: Program the remote control in TV mode and then in VCR mode

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

TUNER/AMPLIFIER CODES

Programming in AUX mode: Press 2 before entering the tuner/amplifier code.

Tuner/ Amplifier	Codes
Aiwa	636, 641, 656, 687, 718, 720, 724, 726, 775
Carver	653
Citizen	709
Curtis Mathes	734
Denon	647, 674
Fisher	653, 741
GE	711
Goldstar	677, 690
Harmon/Kardon	640, 672, 751
Hitachi	717, 754
JBL	640
JVC	637, 683, 703, 725
Kenwood	649, 676, 691, 726, 728, 745
Luxman	752
Magnavox	654, 705, 740
Marantz	651, 740, 742, 743
NAD	739
Nakamichi	671, 748, 750
NEC	716, 739
Onkyo	642, 660, 662, 678
Optimus	648, 664, 734, 744, 749
Panasonic	643, 644, 652, 742, 746
Pioneer	658, 667, 668, 679, 702, 734
Proton	654, 705
Quasar	652, 742, 746
Radio Shack	744
RCA	635, 638, 704, 727

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Tuner/ Amplifier	Codes
Sansui	753
Sanyo	741
Sharp	712, 713, 714, 715, 749
Sherwood	646, 670, 736, 738, 744
Sony	639, 645, 650, 687, 728, 729, 730
Teac	684, 737
Technics	643, 644, 652, 742, 746
Toshiba	710
Yamaha	663, 730, 731, 732, 733, 745, 747
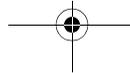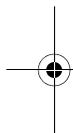
TROUBLESHOOTING THE KIT

What's Happening	What's Wrong	What You Can Do
The kit doesn't work well. *That is*, when you press a remote control button, either nothing happens or the action you want is repeated. Or, the red light flashes or flickers (maybe very dimly) inside the converter, even though you don't press any remote button.	The converter may be picking up stray UHF signals from other devices nearby.	**Note**: When the converter picks up stray UHF signals, even when you don't press a remote button, its red light comes on. You may need to turn off the room lights to be able to see when this happens. **Note**: To find out which device sends out the UHF signals that the converter picks up, unplug one device at a time and note when the converter's red light stays off. • Move the remote back to at least three feet from the converter, so the converter doesn't pick up stray UHF signals from the remote itself. • Move the converter's antenna around, or put it down part way so it doesn't pick up stray UHF signals. • Move the converter around to find a place where it doesn't pick up stray UHF signals. • Re-route the converter's power cord, so the converter doesn't pick up stray UHF signals through its own cord. • Move the other devices so the converter doesn't pick up their UHF signals.
The UHF Pro remote *doesn't* control the satellite receiver in the same room, or does so only some of the time, but *does* control the receiver from other rooms.	The receiver may be picking up stray IR signals from other devices nearby.	• Make sure the front of the converter, with the DISH Network symbol, points toward the receiver's front panel. • Move the converter closer to the receiver, and make sure the converter has a clear signal path to the receiver. • If you don't use an IR extender, try using one. If you do use an IR extender, make sure the extender's IR head is in the correct place. See page 5.

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What's Happening	What's Wrong	What You Can Do
When you press a button on the remote control, the red light flashes inside the converter (but doesn't stay on) and the receiver doesn't do what you expect.	• The converter may not be facing the satellite receiver's front panel. • If you use an IR extender, maybe you didn't connect the extender the correct way. • The converter may be picking up UHF signals from a neighbor's remote control, which may block signals from your remote control. • The converter may be picking up UHF signals from a neighbor's remote control, which may be controlling your receiver.	• Make sure the front side of the converter, with the DISH Network symbol, points toward the receiver's front panel, so the receiver's IR sensor can get the signals. • If you don't use an IR extender, try using one. If you do use an IR extender, make sure the extender's IR head is in the correct place. • UHF signal blocks shouldn't happen very often or for very long. Press the remote control button again. • Change the address of your remote control and receiver. See page 9.
When you press a button on the remote control, the red light inside the converter doesn't flash and the receiver doesn't do what you expect.	The converter may not be receiving the remote control signals.	• Make sure you plug in the converter's power cord. • Make sure the UHF Pro remote control is working (check and maybe replace the batteries). • Try to use the remote control closer to the converter. Move the converter's UHF antenna around for better reception. • If you have put the converter inside an enclosure, put it outside the enclosure. • Make sure the remote and converter are set to the same key setting.
Devices outside the system show UHF interference.	The UHF Pro remote control uses UHF signals to control the receiver. These signals or stray UHF signals from the converter may cause the interference.	Stop using the UHF Pro remote for a while, to see if this stops the interference. If the remote control causes the interference, you'll have to avoid using it whenever you don't want interference with other devices that use UHF.

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What's Happening	What's Wrong	What You Can Do
The receiver does things even though you don't press any remote control buttons.	• The converter may be picking up UHF signals from a neighbor's remote control or from another UHF Pro remote control in the residence, which may be controlling your receiver. • The receiver may be picking up stray IR signals from another DISH Network remote control being used nearby.	• Change the address of your remote control and receiver. See page 9.
Your UHF Pro remote control does not work well from far away	You may be experiencing interference from objects near your converter's antenna.	• Make sure the UHF antenna is connected to the converter and not touching anything else. • Vary the tilt angle of the converter's UHF antenna. Locate the UHF antenna tip away from other electronics equipment or metal surfaces, even if separated by wooden shelving. • Move the converter to different locations. For best results, place the converter as high as possible, above all other equipment in your entertainment center. • Move any nearby off-air antennas away from the UHF remote antenna. Do not place an off-air antenna on your converter.

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LIMITED WARRANTY

This warranty extends *only* to the original user ("you," "your") of the DISH Network IR-to-UHF Pro Upgrade Kit ("the Kit") and is *limited* to the purchase price of the Kit. EchoStar Technologies Corporation and its affiliated companies ("we," "our," "us") warrant the Kit against defects in materials or workmanship as follows.

For one (1) year from the original date of purchase, if we find that the Kit is defective subject to the limits of this warranty, we will replace the Kit at no charge for parts or labor. We warrant any such work done against defects in materials or workmanship for the remaining part of the original warranty period.

This warranty *does not cover* installation of the DISH Network System; consumer instruction; physical set up or adjustment of any consumer electronic device; signal reception problems; loss of use of the equipment; unused programming charges due to equipment malfunction; cosmetic damage; damage due to lightning, electrical or telephone line surges, fire, flood, or other acts of Nature; accident; misuse; abuse; repair or alteration by other than our factory service; negligence; commercial or institutional use; improper or neglected maintenance; equipment sold AS IS or WITH ALL FAULTS; equipment removal or reinstallation; shipping damage if the equipment was not packed and shipped in the manner we prescribe; nor equipment purchased, serviced, or operated outside the contiguous United States of America.

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY. WE SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ON THE KIT, NOR FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE RESULTING FROM THE USE OF, OR INABILITY TO USE, THE KIT. UNDER NO CIRCUMSTANCES SHALL OUR LIABILITY, IF ANY, EXCEED THE PURCHASE PRICE PAID FOR THE KIT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THE KIT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. WE RESERVE THE RIGHT TO REFUSE TO HONOR THIS WARRANTY IF WE DETERMINE ANY OF THE ABOVE EXCEPTIONS TO HAVE CAUSED THE KIT NOT TO HAVE PERFORMED PROPERLY. THIS WARRANTY SHALL BE VOID IF ANY FACTORY-APPLIED IDENTIFICATION MARK HAS BEEN ALTERED OR REMOVED. THIS WARRANTY SHALL ALSO BE VOID IF ANY OF THE PARTS OF THE KIT HAVE BEEN OPENED BY AN UNAUTHORIZED PERSON.

This warranty gives you specific legal rights which may vary from state to state. Some states do not allow the exclusion or limitations of incidental or consequential damages, or allow limitations on the duration of an implied warranty, so those limitations may not apply to you.

ADVANCE EXCHANGE PROGRAM

The Advance Exchange Program allows you to have replacement equipment shipped immediately to you (depending upon where you live, it could take three to five business days). Along with replacement equipment, you will receive a prepaid shipping label and instructions on how to return the defective equipment.

The shipping charge, for receiving replacement equipment and returning the defective equipment, is a one time fee based on EchoStar's competitive bulk shipping rates (additional charges may apply outside of the continental US). This fee will be charged to your billing account or your valid credit card.

If you do not ship the defective equipment to EchoStar within ten days after receiving the replacement, your billing account or credit card will be charged the market price of the replacement. If you return the defective equipment after ten days, you will receive a full refund less an administrative fee.

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, your billing account or credit card will be charged the market price of the replacement.
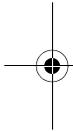
POST RECEIPT EXCHANGE PROGRAM

You may choose to ship the equipment to us at your cost. To provide faster service, upon receipt of your equipment you will be shipped a replacement. Your original equipment will not be available for return.

The equipment you return will be checked to verify whether it is covered under this warranty. If the defective equipment is covered under this warranty, it will be replaced and shipped back to you at no additional cost (additional charges may apply outside of the continental US).

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, your billing account or credit card will be charged the market price of the replacement.
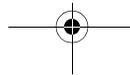
IF YOU NEED HELP

1. Please review these *Instructions*.

2. Please see *Troubleshoot the Kit* on page 42.

3. Call the Customer Service Center at 1-800-333-DISH (3474). Please have the date of purchase and your customer account number ready.

4. A representative will help you.

5. If the rep finds that you should return the Kit, you'll get a telephone number to call for a Return Authorization (RA) number. *Before you ship* any equipment to us, you *must* get an RA number.

6. You *must* package returned equipment properly. Follow the instructions that the rep gives you.

7. Write the RA number in large, clearly visible characters on the *outside* of the shipping box used to return the equipment. *To avoid confusion and misunderstandings, we'll return shipments without an RA number clearly visible on the outside of the box to you at your cost.*

8. What we'll do:

   • Check the Kit, including whether it is covered under this warranty.

   • Replace any Kit that we find is defective with a new or refurbished Kit, if the defective Kit is covered under this warranty. We'll ship the replacement Kit at our cost.

   • If a defective Kit is not covered under this warranty, we'll tell you. We may assess you a flat rate charge for a replacement Kit, including shipping and insurance.
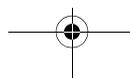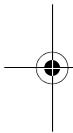
REGULATORY FACTORS

EchoStar Technologies Corporation, 94 Inverness Terrace East, Englewood CO., (303) 706-4000, declares that:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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**Notes**

Notes

Notes

Notes

The information in these instructions may change without notice. We
may issue revisions to tell you about such changes. Please send any
comments or questions on these instructions directly to:
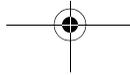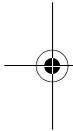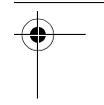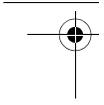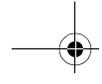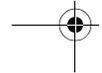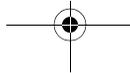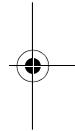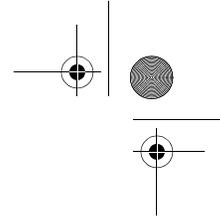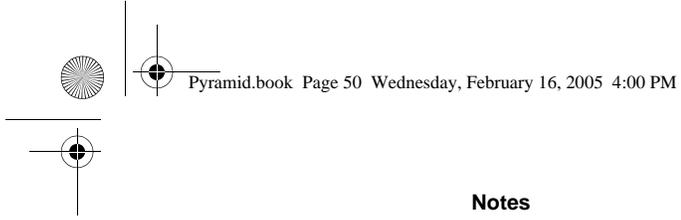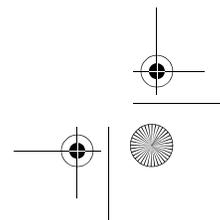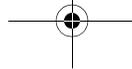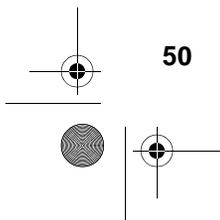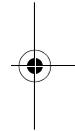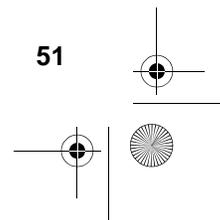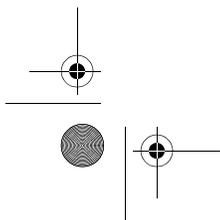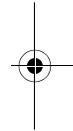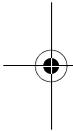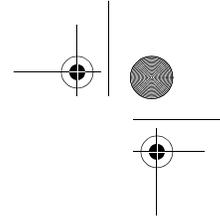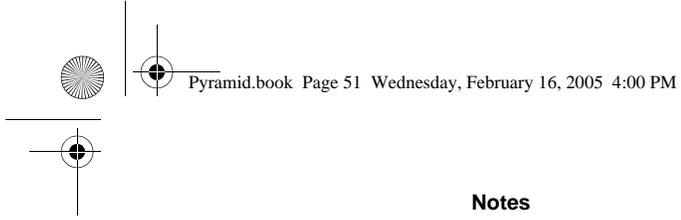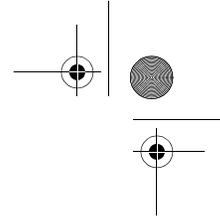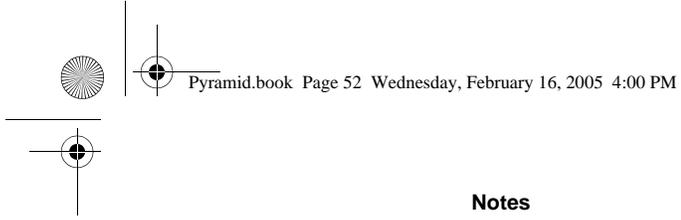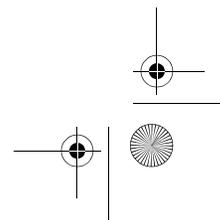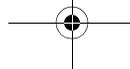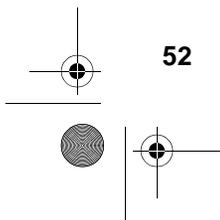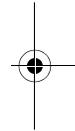
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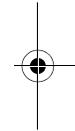
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