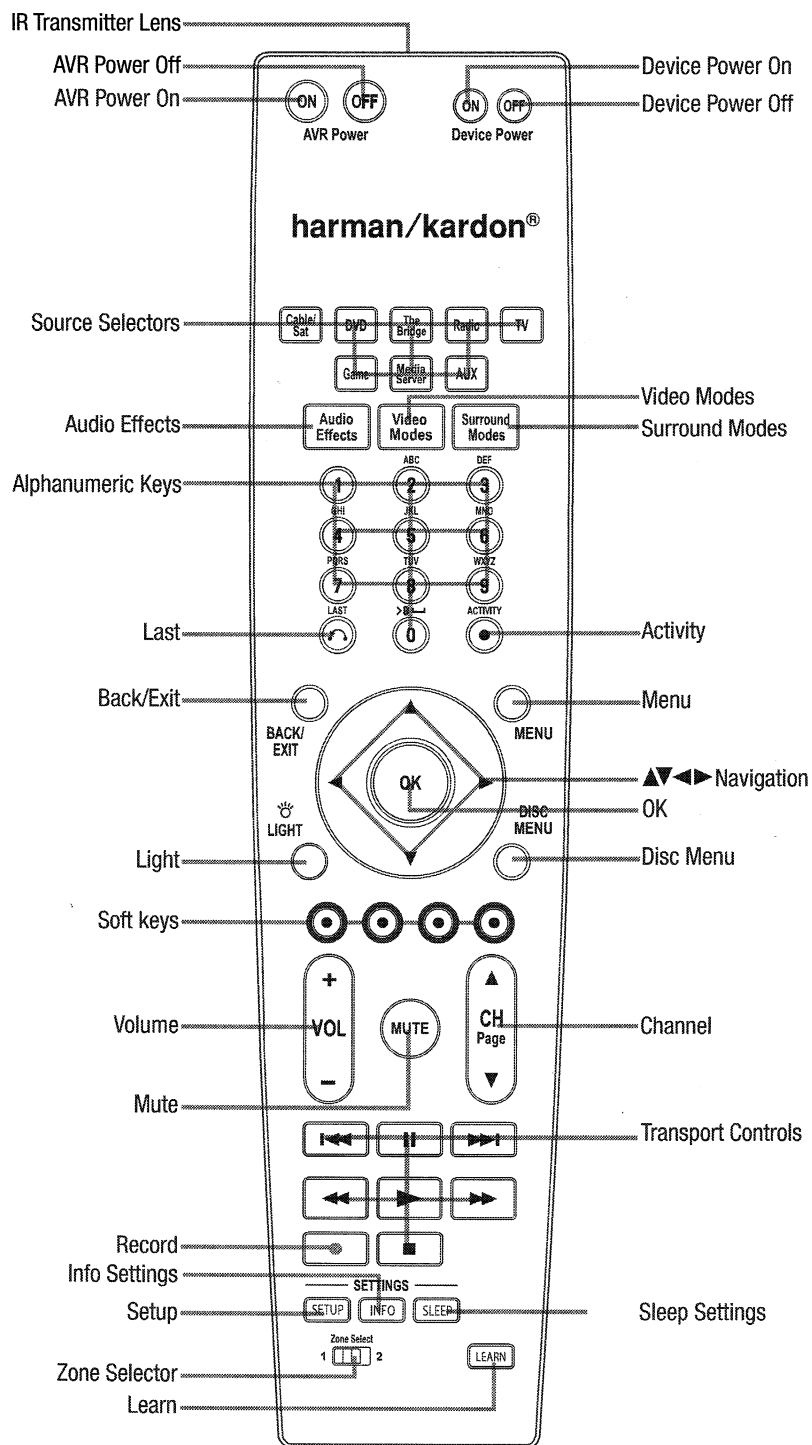


# MAIN REMOTE CONTROL FUNCTIONS



**NOTE:** To make it easier to follow the instructions throughout the manual that refer to this illustration, a copy of this page may be downloaded from the Product Support section at [www.harmankardon.com](http://www.harmankardon.com).

# MAIN REMOTE CONTROL FUNCTIONS

The AVR 3600 remote is capable of controlling 8 devices, including the AVR itself and an iPod docked in the included The Bridge III. During the installation process, you may program the codes for each of your source components into the remote. To operate a component, press its Selector button to change the device mode.

Each Source Selector has been preprogrammed to control certain types of components, with only the codes specific to each brand and model changing, depending on which product code is programmed. The AUX and Cable/SAT Source Selectors may be used for multiple device types, depending on the first digit of the product code. Other Source Selectors may be reassigned to other device types (see Initial Setup section).

**AUX Source Sector:** CD player product codes begin with 0, 1 or 2. VCR codes begin with 3 or 4. HDTV set-top box codes begin with 6, PVD codes begin with 7 and TiVo® set-top box codes begin with 8.

**Cable/SAT Source Selector:** Cable set-top box codes begin with 0, 1 or 2, and satellite set-top box codes begin with 3 or 4.

**IMPORTANT NOTE:** All of the AVR 3600's audio and video inputs are independently assignable. Select the inputs to which the device is physically connected during Initial setup. Any device may be connected to any compatible input and given any name (e.g., DVD or Game).

Most of the buttons on the remote have dedicated functions, although the precise codes transmitted vary depending on the device mode. Due to the wide variety of functions for various source devices, we have included only a few of the most-often used functions on the remote: alphanumeric keys, transport controls, television-channel control, menu access and power on and off.

Buttons dedicated to the AVR are available at any time, even in another device mode: AVR Power On and Off, Audio Effects, Video Modes, Surround Modes, Volume, Mute and Sleep Settings. Press the Setup button near the bottom of the remote to return it to AVR mode.

A button's function depends on which component is being controlled. See Table A13 in the appendix for listings of the functions for each type of component.

**IR Transmitter Lens:** As buttons are pressed on the remote, infrared codes are emitted through this lens.

**AVR Power On Button:** Press to turn on the AVR. The Master Power Switch on the rear panel must be on.

**Device Power Off Button:** Press a device's Source Selector, then press this button to turn off the device.

**Device Power On Button:** Press a device's Source Selector, then press this button to turn on the device.

**Mute Button:** Press to mute the AVR 3600's speaker and headphone outputs. To end the muting, press this button, adjust the volume, or turn off the receiver.

**AVR Power Off Button:** Press to turn off the AVR 3600.

**Source Selectors:** Press one of these buttons to select a source device, e.g., DVD, CD, cable TV, satellite or HDTV tuner. This will also turn on the receiver and switch the remote's device mode to operate the source. The first press of the Radio Selector switches the AVR to the last-used tuner band (AM, FM or SIRIUS). Each successive press changes the band.

**Audio Effects:** Press to directly access the Audio Effects submenu, which allows adjustment of the AVR's tone and other audio controls. See the Initial Setup section for more information.

**Video Modes:** Press for direct access to the Video Modes submenu, which contains picture settings to be used after you have adjusted the picture settings on the video display or TV. See the Advanced Functions section for more information.

**Surround Modes:** Press to directly access the Surround Modes submenu. Select a Surround mode category: Auto Select, Virtual Surround, Stereo, Movie, Music or Video Game. The surround mode will change when the menu line is highlighted.

To change the surround mode for the selected category, press the OK Button when the menu line is highlighted and select one of the available surround mode options, using the ▲/▼ Buttons. Press the OK Button, then press the Back/Exit Button to exit the Surround Modes menu and display the next higher menu in the hierarchy.

See the Advanced Functions section for more information on surround modes.

**Sleep Settings Button:** Press to activate the sleep timer, which turns off the receiver after a programmed period of time of up to 90 minutes. Each press increases the timer by 10 minutes, ending with the "Sleep Off" message.

**Volume Control:** Press to raise or lower the volume.

**Navigation (▲/▼◀/▶) and OK Buttons:** These buttons are used to make selections within the menu system and to operate the tuner.

**Alphanumeric Keys:** Use these buttons to enter numbers for radio station frequencies or to select station presets.

**Last Channel:** When controlling a cable, satellite or HDTV set-top box or a TV, press this button to return to the previous television channel.

**Activity:** With this button, up to eleven Activities may be programmed to transmit a series of commands with a single press. Execute an Activity by pressing this button, then the Alphanumeric Key (or the AVR Power On or Off Button) into which it was programmed. See the Advanced Functions section for more information on Activities.

**Back/Exit:** Press to return to the previous menu or to exit the menu system.

**Menu Button:** This button is used within the Now Playing menu for the tuner (including SIRIUS Radio), and The Bridge III, and to display the main menu on some source devices. To display the AVR 3600's main menu, press the Setup Button.

**Disc Menu:** While a DVD is playing, press the DVD Source Selector, then this button, to display the disc's menu.

# MAIN REMOTE CONTROL FUNCTIONS

**Soft keys:** These buttons are used with some source devices. See Table A13 in the appendix for details. They are also used with a Teletext-capable television if your broadcast, cable or satellite provider offers Teletext service.

**Channel/Page Control:** When the tuner has been selected, this control selects a preset radio station. While operating a cable, satellite or HDTV set-top box or a television, press these buttons to change channels.

**Record Button:** Use this button to make recordings when an audio or video recorder is in use.

**Setup Button:** Press to display the AVR's Main Menu, or to switch the remote to AVR device mode.

**Info Settings Button:** Press to display the AVR's Info Menu, which contains the settings for the current source.

**Source Settings Button:** Press a Source Selector and then this button to display a source device's settings menu.

**Zone Selector:** Use this switch to select whether AVR commands will affect the main listening area (Zone 1) or the remote zone of a multizone system (Zone 2). For normal operation, leave the switch in the Zone 1 position.

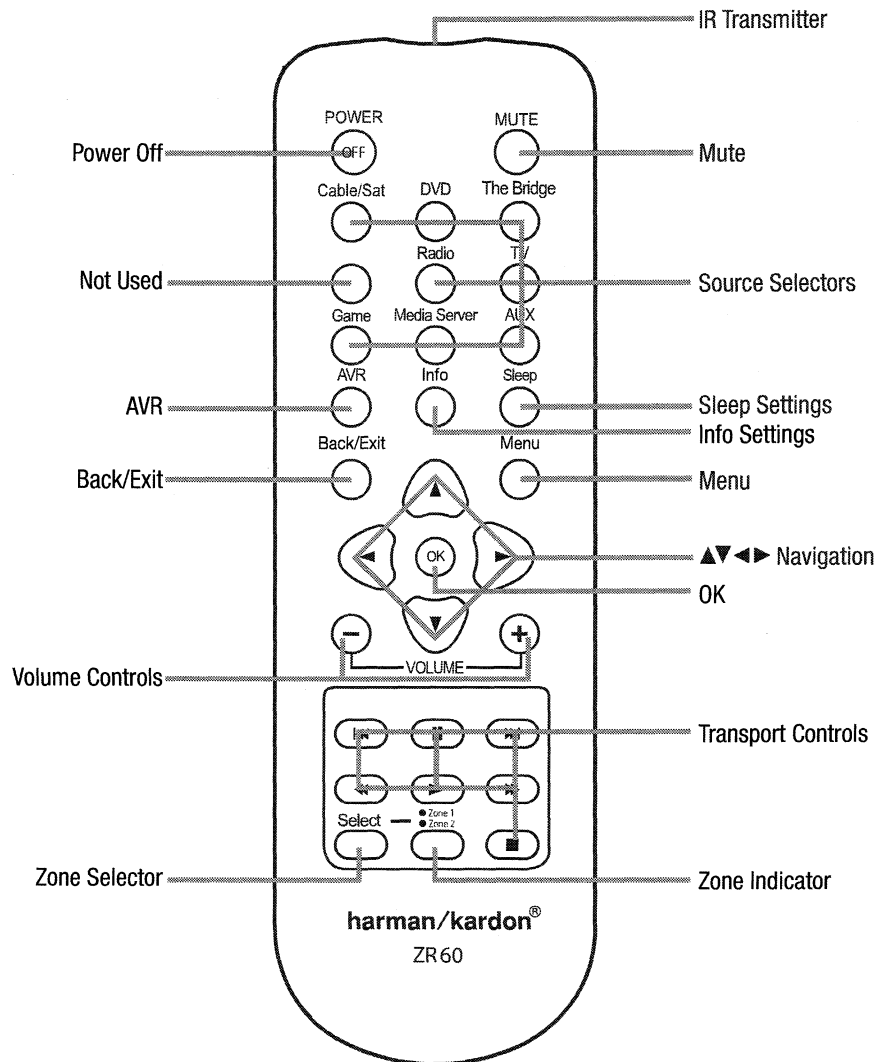
**Track Skip:** These buttons are used with source components to change tracks or chapters.

**Transport Controls:** These buttons are used to control source components and The Bridge III.

**Light:** Press to illuminate the buttons on the remote. Press it again to turn the backlight off, or wait ten seconds after the last button press for the light to turn off on its own.

**Learn:** The AVR 3600 remote is capable of "learning" individual IR codes from the original remote that came with a source device. See page 16 in the Installation section.

# ZONE 2 REMOTE CONTROL FUNCTIONS



**NOTE:** To make it easier to follow the instructions throughout the manual that refer to this illustration, a copy of this page may be downloaded from the Product Support section at [www.harmankardon.com](http://www.harmankardon.com).

# ZONE 2 REMOTE CONTROL FUNCTIONS

The Zone 2 remote control is used in the remote zone of a multizone system with an IR receiver connected to the Zone 2 IR Input or an A-BUS device. It may be used to control the power, volume and mute functions or to select a source input for the remote zone, and to control a Harman Kardon source connected to one of the AVR's Remote IR Outputs or the A-BUS IR Output.

The Zone 2 remote may also be used in the main listening room to directly control the AVR 3600 and Harman Kardon DVD, CD or tape players. When the Zone Selector is pressed to switch the remote to Zone 1 mode (the Zone Indicator will turn green), the power, volume and mute controls will only affect the main listening area. To control operation for the remote zone, press the Zone Selector so that the Zone Indicator turns red.

The Zone 2 remote requires two AAA batteries (included) that are installed in the battery compartment on the back of the remote. Make sure to observe proper polarity by matching the + and - symbols on the batteries to the symbols printed inside the compartment.

**IR Transmitter:** This lens emits infrared codes when buttons on the remote are pressed.

**Power Off:** Press to turn the AVR 3600 off. The Zone 2 remote has no Power On Button, since the AVR turns on its multizone system automatically when any of the Input Selectors is pressed, while the remote is in Zone 2 mode; even if the AVR itself is in Standby mode. When in the main listening room, press any Input Selector or the AVR Selector to turn on the AVR 3600.

**Mute:** Press to mute the AVR 3600's remote zone speakers temporarily. To end the muting, press this button, adjust the volume, or turn off the multizone system. Make sure to switch the remote to Zone 2 mode, so that only the remote zone will be affected.

**Source Selectors:** With the remote in Zone 2 mode, press one of these buttons to select a source device for the remote zone. It will also turn on the multizone system and switch the remote to the source's device mode. You may select a different external source device than that for the main room, but not different tuner bands. If you select the same source as that for the main room, then any commands sent to the source will affect both zones. The first press of the Radio Selector switches the AVR to the last-used tuner band (AM, FM or SIRIUS). Each successive press changes the band.

The DVD Source Selector may be used to operate either a Harman Kardon Blu-ray Disc player, or a Harman Kardon DVD player. The default mode is to operate a Harman Kardon Blu-ray Disc player. To toggle between Harman Kardon Blu-ray Disc-player and DVD-player operation, press and hold the DVD Source Selector for 2 seconds. The source selector will flash twice to confirm that the remote's mode has changed to operate the other type of disc player.

**NOTE:** The blank button to the left of the Radio Selector is not used, even though pressing it causes the Zone Indicator to light up.

**Transport Controls:** These buttons are used to control The Bridge III and many source components.

**Setup Button:** Press to turn on the AVR and select the last-used source. It is also used to switch the remote to AVR device mode.

**Info Settings Button:** In Zone 1 mode, press to display the AVR's Info Setting's Menu, which contains the settings for the current source.

**Sleep Settings Button:** Press to activate the sleep timer, which turns off the receiver after a programmed period of time of up to 90 minutes. Each additional press increases the timer by 10 minutes, ending with the "Sleep Off" message.

**Back/Exit:** Press to return to the previous menu or to exit the menu system.

**Menu Button:** This button is used within the Now Playing menu for the tuner (including SIRIUS Radio), and The Bridge III, and to display the main menu on some source devices.

**Navigation (▲/▼◀/▶) and OK Buttons:** These buttons are used to make selections within the menu system and also to operate the tuner and The Bridge III.

**Zone Selector and Zone Indicator:** Each press of the Zone Selector determines whether the AVR commands will affect the main listening area (Zone 1) or the remote zone (Zone 2). The Zone Indicator will turn green when Zone 1 has been selected, and red for Zone 2. The Zone Indicator will also light briefly when any button is pressed.

**Volume Controls:** Press to raise or lower the volume level in the remote zone.

# INSTALLATION

Leave the Zone Selector Switch at the bottom in the Zone 1 position for normal use.

If the remote seems to operate intermittently, or if pressing a button on the remote does not cause the Setup Button or one of the Source Selectors to light, check or replace the batteries.

## STEP TWELVE – Program Sources Into the Remote

The AVR 3600 remote may be programmed to control many brands and models of DVD players, cable boxes, satellite receivers, the Harman Kardon DMC 1000 digital media center and TVs. It is also preprogrammed to operate your iPod when docked in The Bridge III.

To access the functions for a particular device, switch the remote's device mode. Press the Setup Button to access the codes that control the receiver, or the Source Selector Buttons to access the codes for the devices programmed into the remote.

Follow these steps to program the correct codes for each source device into the remote:

1. Look up the codes for the product type (e.g., DVD, cable TV box) and the brand name of your source in Tables A14–A24 of the Appendix.

**NOTE:** The AUX Source Selector is used for the CD, HDTV, PVD recorder, TiVo and VCR device types. Similarly, the Cable/SAT Source Selector is used for either a cable or satellite TV set-top box. The first digit of the product code indicates the device type.

2. Turn on your source device.
3. Place the remote in program mode: Press and hold the Source Selector as it turns red, goes dark, and turns red again. Then release it.

**Optional:** To reassign a Source Selector's device type (e.g., if there are two DVD players in the system), press the Source Selector for the new device type now. For example, to reassign the Cable/Sat Source Selector to operate a DVD player, first press and hold the Cable/Sat Button, then press the DVD Button.

The remote is preprogrammed at the factory to operate a Harman Kardon Blu-ray Disc™ player when in DVD device mode. It is not necessary to change the device type to program a DVD player's codes.

4. Enter a code from Step 1, above.
  - a) If the device turns off, press the Source Selector again to save the code. It will flash and the remote will exit Program mode.
  - b) If the device does not turn off, enter another code. If you run out of codes, search through all of the codes in the remote's library for that product type by pressing the ▲ or ▼ Button repeatedly until the device turns off. When the device turns off, save the code by pressing the Source Selector. It will flash, and the remote will exit Program mode.

5. Check that other functions control the device correctly. Sometimes manufacturers use the same Power code for several models, while other codes vary. Repeat this process until you've programmed a satisfactory code set that operates most functions.
6. Find out which code number you have programmed by pressing and holding the Source Selector to enter the Program mode. Press the OK Button, and the Source Selector will flash in the code sequence. One flash represents "1", two flashes for "2", and so forth. A series of many fast flashes represents "0". Record the codes programmed for each device in Table A9 in the appendix.

## Learning

You may "learn" individual key codes if you have the device's original remote control by following this procedure:

- a) Place the two remotes with their IR transmitters facing each other, about one inch apart. See Figure 18.

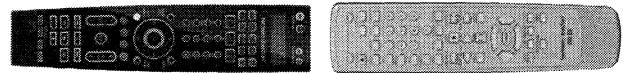


Figure 18 – AVR and Device Remotes "Head to Head"

- b) Press the destination Source Selector, then press and hold the Learn Button until the Source Selector lights up.
- c) Press the destination button, and the Source Selector will flash once. You may learn a new code into the following buttons: Device Power On/Off, Alphanumeric Keys, Last Button, Back/Exit Button, Menu Button, ▲/▼◀/▶ Navigation Buttons, OK Button, Disc Menu Button, the four Soft key Buttons, Channel Up/Down, Volume Up/Down, Mute and the Transport Controls (including Record).
- d) Press and hold the source button until the Source Selector flashes three times.
- e) Program additional buttons by repeating steps c) and d). Press the Learn Button once to exit Learning mode, or wait for the remote to "time out" and exit Learning mode on its own after about 30 seconds.

Most of the button labels on the remote describe the button's function when used to control the AVR 3600. However, the button may perform a different function when used to control another device. Refer to the Remote Control Function List, Table A13 in the Appendix.

Activities are preprogrammed code sequences that execute many code commands with a single button press. "Punch-through" programming allows the remote to operate a device's channel or transport controls with the remote in another device's mode. See page 38 for instructions on these advanced programming functions.

## STEP THIRTEEN – Turn On the AVR 3600

Two steps are required the first time you turn on the AVR 3600.

1. Flip the rear-panel Main Power Switch to the "On" position. The Power Indicator on the front panel will turn amber, indicating that the AVR is in Standby mode and is ready to be turned on. Normally, you may leave the Main Power Switch on, even when the receiver is not being used.

2. There are several ways to turn on the AVR from Standby mode.

- a) Press the Standby/On Switch on the front panel.
- b) Using the remote, press the AVR Power On Button or any of the Source Selectors.

**NOTES:**

- Any time you press one of the Source Selectors on the remote, the remote will switch device modes. To control the receiver, press the Setup Button. Some AVR functions are available in all device modes: Volume Controls (including Mute), Audio Effects, Video Modes, Surround Modes, Setup, Info Settings, Sleep Settings and AVR Power On and Off.
- If you do not see a picture within about 1 minute, refer to the Video Troubleshooting Tips on page 33.

# ADVANCED FUNCTIONS

**HDMI Audio to TV:** Determines whether HDMI audio signals are passed through the HDMI Output to the video display. In normal operation, leave this setting Off, as audio will be played through the AVR. To use the TV by itself, without the home theater system, turn this setting On. Mute the TV's speakers when using the AVR for audio.

**Dolby Volume Calibration:** This setting determines the Dolby Volume Calibration Offset, as described on page 32. Its default of 0dB is best when the system's loudspeakers have a sensitivity rating of 88dB (8 ohms, 1 watt, 1 meter). If your loudspeakers have a higher sensitivity rating, increase the Dolby Volume Calibration setting by the difference between your speakers' sensitivity and 88dB. If your speakers have a lower sensitivity, decrease the Dolby Volume Calibration setting by the difference between 88dB and your speakers' sensitivity.

## Menu Appearance

**Menu Transparency:** Select whether video programs will be visible when the menu system is in use. Select Normal for a fully transparent background, Medium for partial transparency or Opaque to block video programs while the menus are on screen.

**Volume Status Messages:** When the AVR is turned on, the volume is adjusted or the source is changed, or if a change in the input signal is detected, a status message will be displayed on screen. Select how long the message remains visible, from 2 to 10 seconds, with a default of 3 seconds. Select "Off" if you do not wish to see the status messages.

**Menus:** This setting governs how long the Surround Modes, Video Modes and Audio Effects menus remain visible after the last adjustment: 5, 10 or 30 seconds, 1 minute or 5 minutes. Select "No Time-Out" to view the menus indefinitely, but this setting is not recommended, due to the danger of "burn-in" on some video displays.

**Setup and Slide-In Menus:** This setting determines how long the setup menus (Main Menu, Speaker Setup Menu, Zone 2 Menu, all slide-in menus) remain visible after the last adjustment. Select a time-out period of 5, 10 or 15 (the default) minutes, or no time-out, which leaves the menus on screen until manually cleared. A time-out period avoids the possibility of burn-in damage to plasma or CRT displays.

**Screen Saver:** Program a time-out period for no activity (with no menus displayed) before the AVR's built-in screen saver begins. Select a period of 5, 10, 20 or 30 minutes or 1 hour, or turn off the screen saver. A time-out period avoids the possibility of burn-in damage to plasma or CRT displays.

## System Information

**Software Version:** This line is informational only. From time to time, Harman Kardon, Inc., may release software upgrades that improve performance or add features. If you are experiencing difficulties with the AVR, a customer service representative may ask for the software version of your product to determine whether a later upgrade is available.

**Upgrade Software:** If a software upgrade is released for the AVR 3600, installation instructions will be available in the Product Support section of the Web site or from Harman Kardon

Customer Service. At that time, you may access this submenu to install the upgrade software.

**NOTE:** During a system upgrade, do not power off the AVR or use any of its controls. Doing so could permanently damage the AVR.

## ADVANCED REMOTE CONTROL FUNCTIONS

The AVR 3600 remote control also serves as a universal remote that may be programmed to operate other components. Refer to the Function List (Table A14 in the appendix) for assistance in operating your other components. The function of each button will not necessarily correspond to the label printed on the button.

### Punch-Through Programming

The punch-through feature allows you to operate one component, while setting certain groups of controls to operate another component. For example, while using the AVR controls for surround modes and other audio functions, you may operate the transport controls of your DVD player. Or while using the remote to control video functions on your TV, you may use your cable box to change channels.

To program punch-through control while operating any device:

1. Press and hold the Source Selector (or Setup Button) for the main device the remote will be operating. The Source Selector will light, go dark and then light up again, indicating the remote is in Program mode and that you may release the button.
2. Select the type of punch-through programming.
  - a) For channel control punch-through, press the Channel Up Button.
  - b) To program transport control punch-through, press the Play Button.
3. Press the Source Selector for the device whose channel or transport controls will be used while operating the device selected in the first step. The Source Selector will flash to confirm.

For example, to watch the TV while changing channels using the cable box, press and hold the TV Button until it lights. Then press the Channel Up Button, followed by the Cable/SAT Button.

To undo punch-through programming, follow the same steps as above, but press the same Source Selector in Steps 1 and 3.

**NOTE:** The Volume and Mute controls are always dedicated to the AVR.

### Activities (Macros)

Activities are used to program sequences of up to 19 commands that are executed with a single button press. Activities are well suited for power on and off commands, to send out a multidigit channel number with one button press, or to control another device with more flexibility than the built-in punch-through controls. Up to eleven activities may be programmed.



**NOTE:** Use caution when programming complicated activities. It isn't possible to program a pause or delay before sending commands after Power On, and the component may not be ready to respond to commands immediately after powering on.

To program, or "record" an activity, follow these steps:

1. To enter Program mode, simultaneously press and hold the Activity Button and the Alphanumeric Key or AVR Power On or Off Button to which the activity will be assigned.
2. Press the Source Selector (or Setup Button) for each device before you enter individual commands. This step counts as one of the 19 commands allowed for each activity.
3. For Power On, press the AVR or Device Power On Button.
4. Press the AVR or Device Power Off Button for Power Off.
5. Press the Activity Button to end the programming process, and the last Source Selector (or the Setup Button) will flash three times.

It isn't possible to "edit" a command within an activity. To erase the activity:

1. Press and hold the Activity Button and the Alphanumeric Key or AVR Power On or Off Button until the Source Selector or Setup Button lights.
2. Press the Activity Button to erase the activity.

To execute an activity, press the Activity Button, then press the Alphanumeric Key (or the AVR Power On or Off Button) for the Activity.

## Learning

If you have programmed a product's codes into the remote and find that some functions are missing, the AVR 3600 remote may "learn" individual codes from the product's original remote. See page 26.

## Resetting the Remote

To reset the remote to its factory defaults, simultaneously press and hold the TV Source Selector and the "0" Alphanumeric Key. When the TV Button re-lights, enter the code "333". When the TV Button goes out, and all of the Source Selectors flash, the remote will be reset.

## PROCESSOR RESET

If the unit behaves erratically after a power surge, first turn off the Main Power Switch and unplug the AC power cord for at least 3 minutes. Plug the cord back in and turn the receiver on. If this doesn't help, reset the AVR.

**NOTE:** A system reset erases all user configurations, including video resolution, speaker and level settings, and tuner presets. After a reset, reenter all of these settings from your notes in the appendix worksheets.

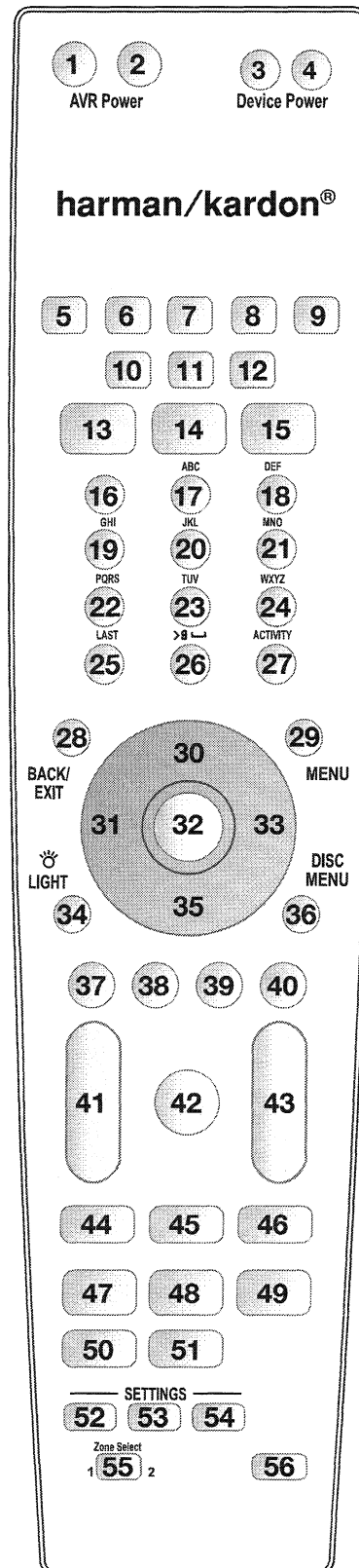
To reset the AVR 3600, place it in Standby mode (press the front-panel Standby/On Switch so that the Power Indicator turns amber). Then press and hold the front-panel OK Button for at least 5 seconds until the RESET message appears.

If the receiver does not function correctly after a processor reset, contact an authorized Harman Kardon service center for assistance. Authorized service centers may be located by visiting the Web site at [www.harmankardon.com](http://www.harmankardon.com).

**NOTE:** After performing a system reset, wait at least 1 minute before pressing any Source Selectors.

## MEMORY

If the AVR 3600 is unplugged or experiences a power outage, it will retain user settings for up to four weeks.



Refer to the numbered buttons in Figure 40 when using the Function List.

Figure 40 – Remote Control Function List Reference

**Table A13 – Remote Control Function List**

No.	Button Name	AVR	Radio			DVD	Media Server	TV	The Bridge
			FM	AM	XM		DMC1000		
01	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On
02	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off
03	Device Power On					Power On	On	Power On	Power On
04	Device Power Off					Power Off	Off	Power Off	Power Off
05	Cable/SAT	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
06	DVD	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
07	The Bridge	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
08	Radio	Radio	Radio	Radio	Radio	Radio	Radio	Radio	Radio
09	TV	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
10	Game	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
11	Media Server	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
12	AUX	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
13	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects
14	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes
15	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes
16	1	1	1	1	1	1	1	1	1
17	2	2	2	2	2	2	2	2	2
18	3	3	3	3	3	3	3	3	3
19	4	4	4	4	4	4	4	4	4
20	5	5	5	5	5	5	5	5	5
21	6	6	6	6	6	6	6	6	6
22	7	7	7	7	7	7	7	7	7
23	8	8	8	8	8	8	8	8	8
24	9	9	9	9	9	9	9	9	9
25	Last	Last	Last	Last	Last			Prev. Ch	Last
26	0	0	0	0	0	0	0	0	0
27	Activity	Activity	Activity	Activity	Activity	Activity	Activity	Activity	Activity
28	Back/Exit	Back/Exit	Back/Exit	Back/Exit	Back/Exit	Clear	Back		Back/Exit
29	Menu	Menu	Menu	Menu	Menu	Menu	Menu	Menu	Menu
30	Up	Up	Tune Up	Tune Up	Channel/Preset Up	Up	Up	Up	Up
31	Left	Left	Preset/Down	Preset/Down	Preset/Category Down	Left	Left	Left	Left
32	OK	OK	OK	OK	OK	Enter	Enter	OK	OK
33	Right	Right	Preset/Up	Preset/Up	Preset/Category Up	Right	Right	Right	Right
34	Light	Light	Light	Light	Light	Light	Light	Light	Light
35	Down	Down	Tune Down	Tune Down	Channel/Preset Down	Down	Down	Down	Down
36	Disc Menu					Disc Menu	Disc Menu	OSD	
37	Red					Angle	Angle		
38	Green					Subtitle	Subtitle		
39	Yellow					Audio	Audio		
40	Blue					Zoom	Zoom		
41	Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +
	Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –
42	Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute
43	Channel/Page Up	Channel/Preset Up	Preset Up	Preset Up	Preset Up	Page Up		Channel Up	Page Up
	Channel/Page Down	Channel/Preset Down	Preset Down	Preset Down	Preset Down	Page Down		Channel Down	Page Down
44	Previous					Prev. Step	Previous		Previous
45	Pause					Pause	Pause		Pause
46	Next					Next Step	Next Step		Next
47	Rew ◀◀					Rew ◀◀	Rew ◀◀		Rew ◀◀
48	Play ▶▶					Play ▶▶	Play ▶▶		Play ▶▶
49	FF ▶▶					FF ▶▶	FF ▶▶		FF ▶▶
50	Record						Record		
51	Stop					Stop	Stop		Stop
52	Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup
53	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings
54	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep
55	Zone Select	Zone Select	Zone Select	Zone Select	Zone Select	Zone Select	Zone Select	Zone Select	Zone Select
56	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn

**Table A13 – continued**

No.	Button Name	Cable/SAT	Game	AUX				
				CD	HDTV	PVD	TIVO	VCR
01	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On	AVR Power On
02	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off	AVR Power Off
03	Device Power On	Power On	Play	Power On	Power On	Power On	Power On	Power On
04	Device Power Off	Power Off	Stop	Power Off	Power Off	Power Off	Power Off	Power Off
05	Cable/SAT	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
06	DVD	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
07	The Bridge	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
08	Radio	Radio	Radio	Radio	Radio	Radio	Radio	Radio
09	TV	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
10	Game	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
11	Media Server	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
12	AUX	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel	Input Sel
13	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects	Audio Effects
14	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes	Video Modes
15	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes	Surround Modes
16	1	1	1	1	1	1	1	1
17	2	2	2	2	2	2	2	2
18	3	3	3	3	3	3	3	3
19	4	4	4	4	4	4	4	4
20	5	5	5	5	5	5	5	5
21	6	6	6	6	6	6	6	6
22	7	7	7	7	7	7	7	7
23	8	8	8	8	8	8	8	8
24	9	9	9	9	9	9	9	9
25	Last	Prev. Ch	Enter		Prev. Ch	Instant Replay	Enter/Last	
26	0	0	0	0	0	0	0	0
27	Activity	Activity	Activity	Activity	Activity	Activity	Activity	Activity
28	Back/Exit	Bypass	Clear		Exit/Cancel	Exit	Exit	Cancel
29	Menu	Menu	Start		Menu	Menu	Menu	Menu
30	Up	Up	Up		Up	Up	Up	Up
31	Left	Left	Left		Left	Left	Left	Left
32	OK	OK	Select		Enter	Setup	Select	Enter
33	Right	Right	Right		Right	Right	Right	Right
34	Light	Light	Light	Light	Light	Light	Light	Light
35	Down	Down	Down		Down	Down	Down	Down
36	Disc Menu	OSD	DVD Menu		OSD	AV	Tivo	OSD
37	Red	Guide	•	Open/Close	Caption	Mark	Window	
38	Green	PPV	■	Random Play	Fav. Ch	Repeat	Live TV	
39	Yellow	Fav. Ch	▲	Repeat	MTS	Jump Up	Slow	
40	Blue	Music	X	Intro Scan	Aspect	Jump Down	Skip	
41	Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +	AVR Volume +
	Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –	AVR Volume –
42	Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute	AVR Mute
43	Channel/Page Up	Channel Up	Scan Up	(+10)	Channel Up	Channel Up	Channel Up	Channel Up
	Channel/Page Down	Channel Down	Scan Down	Disc Skip	Channel Down	Channel Down	Channel Down	Channel Down
44	Previous		Slow Down	Skip Down	Back	Last Clip	Thumb Down	Scan Down
45	Pause		Pause	Pause	Pause	Pause	Pause	Pause
46	Next		Slow Up	Skip Up	Replay	Next Clip	Thumb Up	Scan Up
47	Rew ◀◀		Prev.	R. Search	Rew ◀◀	Rew ◀◀	Rew ◀◀	Rew ◀◀
48	Play ▶		Play ▶	Play ▶	Play ▶	Play ▶	Play ▶	Play ▶
49	FF ▶▶		Next	F. Search	FF ▶▶	FF ▶▶	FF ▶▶	FF ▶▶
50	Record		Subtitle	Time	Record	Record	Record	Record
51	Stop		Stop	Stop	Stop	Stop	Stop	Stop
52	Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup	AVR Sel and Setup
53	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings	Info Settings
54	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep
55	Zone Select							
56	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn

# APPENDIX

Refer to Tables A14 through A24 when programming the codes for your components into the remote.

**Table A14 – Remote Control Product Codes: TV**

TV Manufacturer/Brand	Setup Code Number
AIWA	027
A MARK	122 132
ADMIRAL	192
AKAI	123 160
AMPRO	164
ANAM	045 106 109 112 122
AOC	122 123 128
BLAUPUNKT	084
BROKSONIC	205 206
CANDLE	123 128
CAPEHART	059
CENTURION	123 171
CENTRONIC	045
CITIZEN	045 123 128 132
CLASSIC	045
CONCERTO	128
CONTEC	045
CORANDO	172
CORONADO	132
CRAIG	045 157 158 159
CROWN	045 132
CURTIS MATHES	123 128 132
CXC	045
DAEWOO	045 087 102 105 106 108 111 114 116 119 127 128 132
DAYTRON	128 132
DIGI LINK	200
DYNASTY	045
DYNATECH	063
ELECTROHOME	115 132
EMERSON	045 123 128 132 139 157 158 159 162 205
FUNAI	045
FUTURETECH	045
GE	029 087 121 123 128 133 145 159 163
GRUNDIG	193
HALL MARK	128
HARMAN KARDON	201
HITACHI	123 128 132 144 147
INFINITY	148
INKEL	120
JBL	148
JC PENNEY	115 123 128 132 145
JENSEN	019
JVC	079 087 134
KAWASHO	173
KEC	045
KENWOOD	123 204
KMC	132
KTV	045 123 132 162

TV Manufacturer/Brand	Setup Code Number
LG/GOLDSTAR	101 110 122 128 132
LLOYTRON	172 173
LODGENET	069
LOGIK	069
LUXMAN	128
LXI	077 145 148
MAGNAVOX	030 123 128 132 145 148
MARANTZ	115 123 148
MATSUI	148
MEMOREX	069 128
METZ	084
MGA	115 123 128
MINERVA	084
MITSUBISHI	077 115 123 128 160 167 168
MTC	175 176
NATIONAL	148 177 179 180 181 182
NEC	115 121 123 125
NIKEI	045
ONKING	045
ONWA	045
OPTONICA	077
ORION	207 208 209 210 211
PANASONIC	087 148 169
PHILCO	045 115 123 128 132 148
PHILIPS	033 034 035 036 123 128 132 145 148
PIONEER	024 123 128
PORTLAND	128 132
PROSCAN	133
PROTON	059 122 128 132 165
QUASAR	032 087
RADIO SHACK	045 128 132 180 196 197
RCA	021 115 123 128 133 145 161 163
REALISTIC	045 167 196
RUNCO	152 153
SAA	183
SAMPO	059 123 128
SAMSUNG	020 022 124 128 132 145
SANYO	026 054
SCOTT	045 128 132
SEARS	128 132 145
SHARP	077 128 132
SIEMENS	084
SIGNATURE	069
SONY	028 031 117 130 136 194 212
SOUNDESIGN	045 128
SPECTRICON	122
SSS	045
SYLVANIA	025 123 128 145 148
SYMPHONIC	184
TANDY	077

**Table A14 – continued**

TV Manufacturer/Brand	Setup Code Number
TATUNG	063
TECHNICS	181
TECHWOOD	128
TEKNIKA	045 069 115 123 128 132
TELERENT	069
TERA	156
THOMSON	190 191
TMK	128
TOSHIBA	063 129 202
TOTEVISION	132
VIDEO CONCEPTS	160
VIDTECH	128
WARDS	069 128 132 148
YAMAHA	123 128
YORK	128
YUPITERU	045
ZENITH	069 090
ZONDA	122

**Table A15 – Remote Control Product Codes: AUX-HDTV**

TV Manufacturer/Brand	Setup Code Number
LG	604
MOTOROLA	605
RCA	601
SAMSUNG	603
ZENITH	602

**Table A16 – Remote Control Product Codes: AUX-VCR**

VCR Manufacturer/Brand	Setup Code Number
AIWA	340
AKAI	348 408 409 426
AMPRO	376
ASA	434
AUDIO DYNAMICS	318 348
BROKSONIC	410 447
CANDLE	434 435
CANON	435 440
CAPEHART	394
CITIZEN	434
CRAIG	345 416
DAEWOO	317 394 404
DAYTRON	394
DBX	318 348
DIRECTV	314 315
DYNATECH	340
EMERSON	313 340 342 410 412
FISHER	317
FUNAI	340
GE	376 395 424
GO VIDEO	413
HARMAN KARDON	302 303 318 349
HITACHI	340 348
JC PENNEY	318 345

**Table A16 – continued**

VCR Manufacturer/Brand	Setup Code Number
JENSEN	348
JVC	318 348 411 432
KENWOOD	320 348
LG/GOLDSTAR	318 407
LLOYD	340
LXI	320 340
MAGIN	345
MAGNAVOX	340
MARANTZ	318
MEMOREX	317 320 340 352 353 354 376
MGA	349
MITSUBISHI	349 431
MULTITECH	340
NAD	439
NATIONAL	440
NEC	318 348
NORDMENDE	348
OPTIMUS	459
ORION	447
PANASONIC	425 450 467 472
PHILCO	340
PHILIPS	340 375
PORTLAND	394
PULSAR	376
QUASAR	301 425
RADIO SHACK	355 434 440 442 458 459
RCA	395 424 425 457 472
REALISTIC	317 320 340 345 459
SALORA	320
SAMSUNG	345 351 395 405 409
SANSUI	348 416 447
SANYO	317 320
SCOTT	410 412
SEARS	317 320
SHARP	429 456
SONY	380 429
SOUNDESIGN	340
SYLVANIA	340
SYMPHONIC	340
TANDY	317 340
TASHICO	434
TATUNG	348
TEAC	340 348
TEKNIKA	340
THOMAS	340
Tivo	304 305 306 307 308 309 310 311 312
TMK	313
TOSHIBA	412 455
TOTEVISION	345
UNITECH	345
VECTOR RESEARCH	318
VIDEO CONCEPTS	318 340
VIDEOSONIC	345
WARDS	340 345 412
YAMAHA	318 340 348
ZENITH	340 350 376 383

**Table A17 – Remote Control Product Codes: AUX-CD**

CD Manufacturer/Brand	Setup Code Number
ADCOM	063 069
AIWA	072 111 118 156 170
AKAI	050 177 184
AUDIO TECHNICA	053
AUDIOACCESS	125
AUDIOFILE	211
BSR	044
CALIFORNIA AUDIO	109
CAPETRONIC	070
CARRERA	087
CARVER	136 140 141 143 144 145 185 186
CASIO	117 166
CLARINETTE	166
DENON	187 188 213
EMERSON	052 093 108
FISHER	055 095
FRABA	117
FUNAI	126
GE	164
GENEXXA	108
HAITAI	099 214
HARMAN KARDON	001 002 025 054 190
HITACHI	093
INKEL	216
JC PENNEY	098 147
JENSEN	153
JVC	176 195 196
KENWOOD	030 062 078 079 148 151 176 178 181
LG/GOLDSTAR	016 087
LOTTE	108
LUXMAN	077 102
LXI	164
MAGNAVOX	039 113
MARANTZ	058 084 191 192 193
MCINTOSH	194
MCS	080 098
MITSUMI	152
MODULAIRE	166
NAD	013 074 197 198
NAKAMICHI	199 200 201
NEC	069
NIKKO	053 055
ONKYO	037 038 045 046 171 175 202 203
OPTIMUS	065 089 091 092 099 104 212
PANASONIC	075 109 119 158 183 204
PHILIPS	039 138 149 209
PIONEER	071 094 100 112 123 131 161 162 215
PROTON	210
QUASAR	109
RADIO SHACK	126 166 213
RCA	024 081 093 150
RCX	169
REALISTIC	058 093 095 104 105 108 164 166

**Table A17 – continued**

CD Manufacturer/Brand	Setup Code Number
SANSUI	047 081 134 157 172
SANYO	033 082 095
SCOTT	108
SHARP	058 105 114 151 159 167 180 181
SHERWOOD	003 041 058 105 133
SONY	103 115 116 118 132 139 163 205 206 207 208 212 217
SOUNDSTREAM	124
SYMPHONIC	059 110
TAEKWANG	177
TEAC	011 058 085 086 106 107 110 121 137 146 154
THETA DIGITAL	039
TOSHIBA	013 074 097 151 155 173
VECTOR RESEARCH	087
VICTOR	120 130
WARDS	095
YAMAHA	019 031 053 061 135 169
YORK	166

**Table A18 – Remote Control Product Codes: DVD**

DVD Manufacturer/Brand	Setup Code Number
APEX DIGITAL	061
DENON	019 051
GE	003 004
HARMAN KARDON	001 002 007 068 201 202
JVC	006
LG/GOLDSTAR	005 055 064 066
MAGNAVOX	056
MARANTZ	059
MITSUBISHI	023
NAD	062
ONKYO	009 048
PANASONIC	024 030 044
PHILIPS	056
PIONEER	041 065
PROCEED	060
PROSCAN	003 004
RCA	003 004
SAMSUNG	053 054
SHARP	028
SONY	043 045
THOMSON	003 004
TOSHIBA	009 058 067
YAMAHA	030 063
ZENITH	005 055 064

**Table A19 – Remote Control Product Codes: SAT**

SAT Manufacturer/Brand	Setup Code Number
ALPHASTAR	472
ALPHASTAR DBS	450
ALPHASTAR DSR	442
BIRDVIEW	425
CHANNEL MASTER	320 321 325 361
CHAPARRAL	315 316 451
CITOH	360
DRAKE	313 317 318 413 481
DX ANTENNA	331 352 379 483
ECHOSTAR	395 397 452 453 463 477 478 484 485
ELECTRO HOME	392
FUJITSU	324 329 334
GENERAL INSTRUMENT	303 311 323 365 403 454 468 474
HITACHI DBS	455
HOUSTON TRACKER	463
HUGHES	437 489
JANIEL	366
JERROLD	454 468 484
KATHIREIN	410
LEGEND	453
MACOM	317 365 369 370 371
MAGNAVOX	461 473
MEMOREX	453
NEXTWAVE	423
NORSAT	373
OPTIMUS	466
PACE DSS	487
PANASONIC	366 469
PANASONIC DBS	457
PANSAT	420
PERSONAL CABLE	418
PHILIPS	375
PICO	407
PRESIDENT	381 404
PRIMESTAR	412 454 468 475
RCA	301 439 465 490
RCA DSS	458
REALISTIC	349 480
SAMSUNG	442
SATELLITE SERVICE CO	335 388
SCIENTIFIC ATLANTA	339
SONY	405
STAR CHOICE DBS	459
STARCAST	347
SUPER GUIDE	327 423
TELECOM	330 333 390 391 393 409
TOSHIBA	302 426 460 461 462 470
UNIDEN	323 332 348 349 350 351 354 355 381 383 389 403 466 479 480
ZENITH	384 385 387 394 419 488

**Table A20 – Remote Control Product Codes: GAME**

Game Manufacturer/Brand	Setup Code Number
MICROSOFT (XBOX)	001
SONY (PLAYSTATION 2)	002

**Table A21 – Remote Control Product Codes: Cable**

Cable Manufacturer/Brand	Setup Code Number
ABC	001 011
ALLEGRO	111
AMERICAST	212
ARCHER	112
BELCOR	113
CABLE STAR	033 113
CITIZEN	111
COLOUR VOICE	085 090
DIGI	114
EAGLE	186
EASTERN	066 070
ELECTRICORD	039
EMERSON	112
FOCUS	116
G.I.	001 011 017 096 097
GC ELECTRONICS	113
GEMINI	032 060
GENERAL	210
GENERAL INSTRUMENT	210
GOODMIND	112
HAMLIN	056 099 100 101 117 175 208
HITACHI	001 188
JASCO	111
JERROLD	001 002 011 017 073 096 097 162 188 210
LINDSAY	118
MACOM	191
MAGNAVOX	017 019 068
MOVIE TIME	035 039
NSC	035 190
OAK	197 220
PACE	179
PANASONIC	053 176 177 189 214
PANTHER	114
PHILIPS	013 019 020 085 090
PIONEER	001 041 119 171 209 215 216
POPULAR MECHANICS	116
PRELUDE	120
PRIMESTAR	162
RADIO SHACK	111 112 213
RCA	053 214
RECOTON	116
REGAL	056 099 100 101 208
REMBRANDT	032



**Table A21 – continued**

CBL Manufacturer/Brand	Setup Code Number
SAMSUNG	003 072 186
SCIENTIFIC ATLANTA	183 203 221 222
SEAM	121
SIGNATURE	001 188
SPRUCER	053 081 177 189
STARCOM	002 011 163
STARGATE	120
TANDY	024
TELECAPATION	028
TEXSCAN	036
TFC	122
TIMELESS	123
TOCOM	170 205
UNITED CABLE	011
UNIVERSAL	033 034 039 042 113
VIDEOWAY	124 211
VIEWSTAR	019 025 086 089 190
ZENITH	065 125 211 219
ZENITEK	116

**Table A22 – Remote Control Product Codes: AUX-MEDIA SERVER**

Manufacturer/Brand	Setup Code Number
HARMAN KARDON	002

**Table A23 – Remote Control Product Codes: AUX-Cable/SAT RECORDER (PVR)**

Manufacturer/Brand	Setup Code Number
DAEWOO	701 704
ECHOSTAR	714 715 716
EXPRESSVU	714
HUGHES	717 727
HYUNDAI	718
KEEN	709
PANASONIC	710 723
PHILIPS	711 717 724 727
PROSCAN	719
RCA	719 727
REPLAYTV	708 710 712 725 726
SONICBLUE	710 712
SONY	707 713 720 721 722 723 724

**Table A24 – Remote Control Product Codes: AUX-TiVo**

Manufacturer/Brand	Setup Code Number
DIRECTV	806 (See also Table A16)
PIONEER	801
SERIES 2 DVR	802 809
TOSHIBA	803
OTHER TiVo	804 805 807 808 810