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RCP 7

SYSTEM REMOTE
OWNER'S MANUAL

(FOR USE WITH CP 65 SYSTEM)

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Your Harman Kardon® CP Series system combines the superior performance and practical flexibility of high-quality separate audio/video components with the convenience of a complete system in one carton. You will need to provide a video display or television, but you may also add almost any source device, ranging from a cassette deck or VCR all the way up to the latest digital cable or satellite television set-top box (or even products that may be released in the future).

The single RCP 7 remote replaces the original remotes supplied with the AVR 347 receiver and DVD 48 DVD player. Although the RCP 7 operates both products, along with a host of other products you may have added to your system, this manual describes a few differences from the original remotes.

To obtain the maximum enjoyment from your new home theater system, we urge you to read this manual, as well as the manuals included with the system components, and refer back to it as you become more familiar with its features and their operation. If you have any questions about this product, its installation or its operation, please contact your retailer or custom installer, or visit our Web site at www.harmankardon.com.

REMOTE CONTROL FUNCTIONS

The RCP 7 remote is capable of controlling 11 devices, including the AVR 347 and the DVD 48 included in the CP 65 system. During the installation process, you may program the codes for each of your source components into the remote. Each time you wish to use the codes for any component, first press that component's selector. This changes the button functions to the appropriate codes for that product.

> NOTE: Several of the Input Selectors are shared between two devices. The selector button will light in red when the remote is in the device mode printed on the button, and it will light in green for the device mode printed above the button. To switch between the two device modes, press the selector *twice* quickly in succession. The selector will remain in the last-selected mode until the next time you press it twice quickly.
>
> For example, the first time you press the DVD Button, the button will light in red, indicating that the remote is in DVD mode. If you press another selector, such as the VID3 Selector, and then press the DVD Button again, the DVD Button will remain red, indicating the remote is still in DVD mode. Now press the DVD Button twice quickly. At the first press the Button will light in red, indicating that the remote is in DVD mode. On the second press the button will turn green, indicating that the remote is now in CD mode. If you press a different selector and return to the DVD/CD Selector, you will observe that the remote is still in CD mode.

Each Input 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 device types programmed into each selector (except HDMI 1 and 2) may not be changed.

DVD: Controls DVD players and recorders. The DVD Button functions are labeled in blue on the remote.

CD: Controls CD players and recorders.

Tape: Controls cassette decks.

The Bridge/DMP: Controls an iPod device docked in The Bridge.

Video 1: Controls VCRs, TiVo® boxes and DVRs.

Video 2: Controls cable and satellite television set-top boxes.

Video 3: Controls televisions and other video displays.

Video 4: Controls a TV connected to the front-panel inputs.

HDMI™ 1 and 2: Each code set controls a source device (such as a VCR/PVR/DVD player or cable/satellite set-top box) connected to one of these two inputs.

XM: Controls the AVR functions for XM Satellite Radio.

For example, if you have inserted a disc in your CD player and you would like to skip ahead three tracks, but you then find that the volume is too loud, you would follow this procedure:

1. Press the CD Input Selector to switch to the codes that control your CD player. If the remote is in DVD mode, press the selector twice quickly to switch to CD mode, indicated by the selector turning green.

2. Press the Play Button (in the Transport Controls section) if the disc is not already playing.

3. Press the Skip Up Button three times to advance three tracks.

4. Press the AVR Button so that you can access the volume controls.

5. Press the Volume Down Button until the volume level is satisfactory.

Any given button may have different functions, depending on which component is being controlled. The buttons are labeled with some of these functions, with the receiver's functions shown in gray, and the DVD player's functions shown in blue. For example, the Sleep and DSP Surround Buttons are labeled for use as Channel Up/Down Buttons when controlling a television or cable box. See Table A1 in the Appendix for listings of the different functions for each type of component.

> NOTE: Although we have described the applicable DVD functions in this section, we strongly recommend that you review the DVD 48 manual for more information about using these functions.

IR Transmitter Lens: As buttons are pressed on the remote, infrared codes are emitted through this lens. Make sure it is pointing toward the component being operated.

Power On Button: Press this button to turn on the AVR or another device. The Master Power Switch on the AVR 347's front panel must be switched on first.

Mute Button: Press this button to mute the AVR 347's speaker and headphone outputs temporarily. To turn off muting, press this button or adjust the volume. Muting is also canceled when the receiver is turned off.

Program Indicator: This LED lights up or flashes in one of three colors as the remote is programmed with codes.

Power Off Button: Press this button to turn off the AVR 347 or another device.

AVR Selector: Press this button to switch the remote to the codes that operate the receiver.

Input Selectors: Press one of these buttons to select a source device, which is a component where a playback signal originates (e.g., DVD, CD, cable TV, satellite or HDTV tuner). This will also turn on the receiver (if it is not already on) and switch the remote's mode to operate the source device.

AM/FM Button: Press this button to select the tuner as the source, or to switch between the AM and FM bands.

6-/8-Channel Input Selector: Press this button to select the 6-/8-Channel Inputs as the audio source. The receiver will use the video input and remote control codes for the last-selected video source.
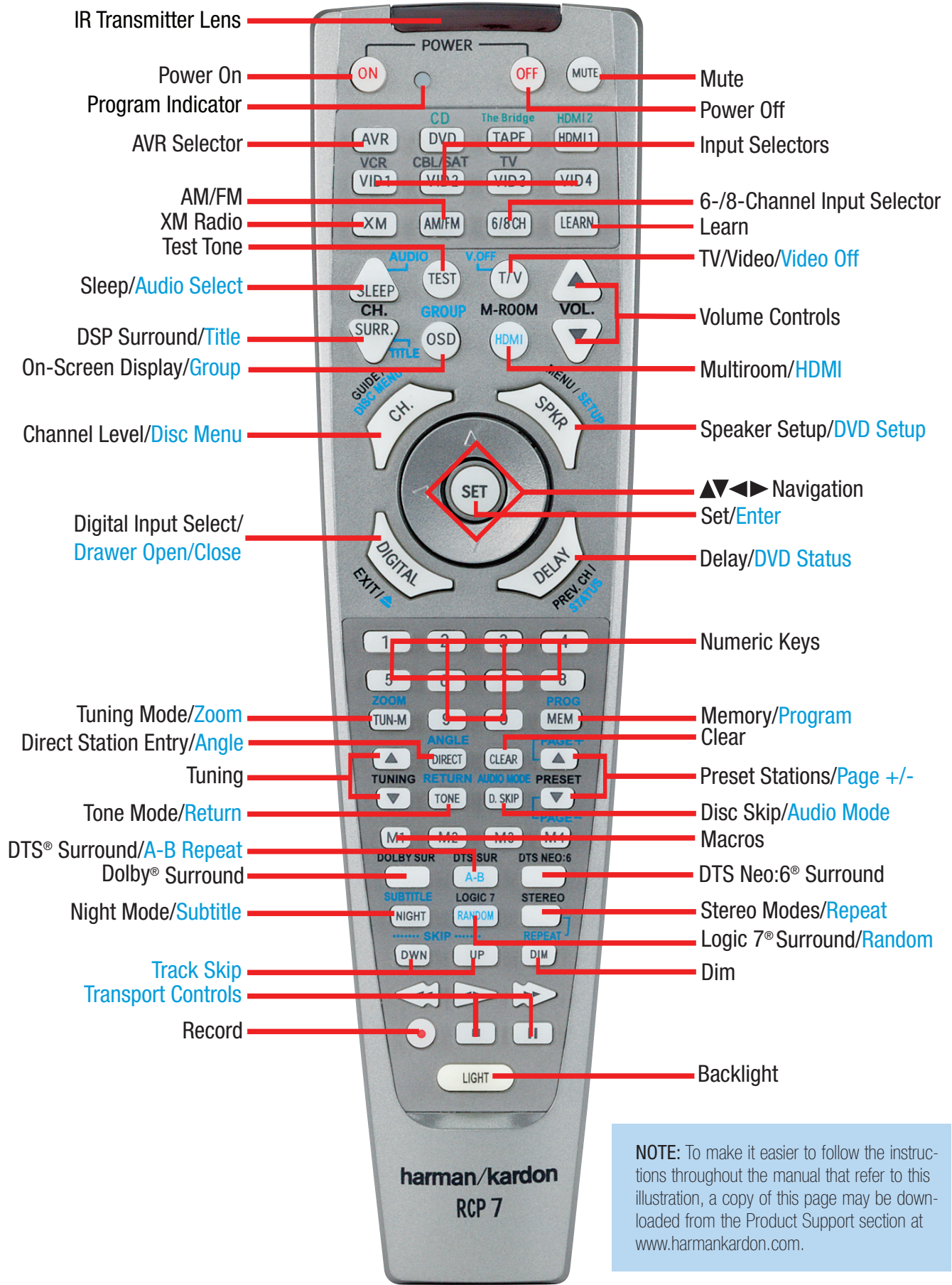
IR Transmitter Lens

POWER

Power On — ON
Program Indicator

Mute — MUTE
Power Off — OFF

AVR Selector — AVR

CD — DVD
The Bridge — TAPE
HDMI 2 — HDMI 1
Input Selectors

VCR — VID 1
CBL/SAT — VID 2
TV — VID 3
VID 4

AM/FM — AM/FM
XM Radio — XM
6/8CH — 6-/8-Channel Input Selector
LEARN — Learn

AUDIO
Test Tone — TEST
V.OFF
T/V — TV/Video/Video Off

Sleep/Audio Select — SLEEP

CH.
GROUP
M-ROOM
VOL.
Volume Controls

DSP Surround/Title — SURR.
OSD
TITLE
HDMI
Multiroom/HDMI
On-Screen Display/Group

GUIDE/DISC MENU
MENU/SETUP

Channel Level/Disc Menu — CH.
SPKR
Speaker Setup/DVD Setup

SET

▲▼◄► Navigation
Set/Enter

Digital Input Select/
Drawer Open/Close — DIGITAL
EXIT
DELAY
PREV. CH/STATUS
Delay/DVD Status

1 2 3 4
Numeric Keys

5 6 7 8

ZOOM
Tuning Mode/Zoom — TUN-M
9 0
PROG
MEM
Memory/Program
Clear — CLEAR

ANGLE
Direct Station Entry/Angle — DIRECT
PAGE +
▲
PRESET
Preset Stations/Page +/-

Tuning — ▲
TUNING
RETURN
AUDIO MODE

Tone Mode/Return — TONE
▼
D. SKIP
▼
Disc Skip/Audio Mode
PAGE –

M1 M2 M3 M4
Macros

DOLBY SUR
DTS SUR
DTS NEO:6

DTS® Surround/A-B Repeat — A-B
Dolby® Surround
DTS Neo:6® Surround

SUBTITLE
LOGIC 7
STEREO

Night Mode/Subtitle — NIGHT
RANDOM
Stereo Modes/Repeat
SKIP
REPEAT
Logic 7® Surround/Random

Track Skip — DWN UP DIM
Transport Controls
Dim

Record

LIGHT
Backlight

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RCP 7

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.

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REMOTE CONTROL FUNCTIONS

XM Radio Button: Press this button to select XM Satellite Radio as the source. You will need to have purchased and activated an XM® antenna module, and you will also need to subscribe to the XM Radio service. Visit www.xmradio.com for more information.

Learn Button: The RCP 7 remote is capable of "learning" individual IR codes from the original remote that came with your TV or a device that is connected to any of the source inputs. See the Programming Sources section for instructions on learning remote codes.

Test Tone: Press this button to activate the test tone for manual output-level calibration.

TV/Video/Video Off: This button has no effect on the receiver, but is used to switch video inputs on some video source components.

When the DVD player has been selected (by pressing the DVD Input Selector), pressing this button disables the DVD 48's video output to avoid "burning in" menus or still images on sensitive video displays. This feature is particularly useful when listening to CDs or other audio-only presentations.

Sleep/Audio Select: Press this button to activate the sleep timer, which shuts off the receiver after a programmed period of up to 90 minutes.

When the DVD player has been selected, this button may be used to select another audio format or language, if one is available on the disc.

Volume Controls: Press these buttons to raise or lower the volume, which will be shown in decibels (dB) in the Message Display.

DSP Surround/Title: Press this button to select a DSP Surround mode (Hall 1, Hall 2, Theater).

When the DVD player has been selected, this button serves the Title function. When a DVD is playing, press this button to go back to the main title menu for the disc. If you are playing a DVD-Audio disc that contains other audio formats, such as linear PCM or Dolby® Digital 5.1 audio, pressing this button may enable you to switch playback from one audio format to another.

On-Screen Display (OSD)/Group: Press this button to activate the AVR 347's on-screen menu system.

When the DVD player has been selected, this button serves the Group function. Press it to select another group on a DVD-Audio disc for playback. See the DVD 48's manual for a more detailed explanation.

Multiroom/HDMI: Press this button to control the multiroom system. Three settings are available: MULTI ON/OFF, which is used to turn the multiroom system on or off; MULTI LEVEL, which adjusts the volume of the remote zone; and MULTI INPUT, which is used to select the source input for the remote zone. See Multiroom Operation in the Advanced Functions section of the AVR 347 manual for more information on using the multiroom system.

When the DVD player has been selected, this button is used to turn the DVD 48's HDMI Output on or off. It has the opposite effect on the

DVD 48's Component Video Outputs. See the DVD 48's manual for more information.

Channel Level/Disc Menu: Press this button to set the output levels for each channel so that all speakers sound equally loud at the listening position. This may be done while playing an audio selection, such as a favorite CD, after you have calibrated the levels using the EzSet/EQ™ process.

When the DVD player has been selected, this button serves the Disc Menu function. While a disc is playing, press this button to view the disc's menu. This function is different from the DVD Setup function.

Speaker Setup/DVD Setup: Press this button to configure speaker sizes; that is, the frequency-range capability of each speaker. This may be done automatically by running the EzSet/EQ procedure, or using the on-screen menu system, as described in the Advanced Functions section of the AVR 347 owner's guide.

When the DVD player has been selected, this button serves the DVD Setup function. Press it to use the DVD 48's on-screen menu system to adjust the player's configuration settings. This function is different from the Disc Menu function.

Navigation and Set/Enter Buttons: These buttons are used together to make selections within the AVR 347's or DVD 48's on-screen menu system, or when accessing the AVR functions of the four buttons surrounding this area of the remote – Channel Level, Speaker Setup, Digital Input or Delay.

Digital Input Select/Drawer Open/Close: Press this button to select the specific digital audio input (or analog audio input) you used for the current source.

When the DVD player has been selected, this button is used to open or close the disc drawer.

Delay/DVD Status: Press this button to set delay times that compensate for placing the speakers at different distances from the listening position, or to resolve a "lip sync" issue that may be caused by digital video processing. This may be done automatically by running the EzSet/EQ procedure, or using the on-screen menu system, as described in the Advanced Functions section of the AVR 347 owner's guide.

When the DVD player has been selected, this button serves the Status function. Press it while a disc is playing to view the on-screen Status Display, which provides a snapshot of the settings for the current disc. See the DVD 48 owner's manual for more information.

Numeric Keys: Use these buttons to enter radio station frequencies or to select station presets. When the AM or FM band is in use, press the Direct Button before entering the station frequency.

When listening to XM Radio, you may enter channel numbers without first pressing the Direct Button; however, to access the preset stations, you will need to use the Preset Stations Selectors. To access another bank of XM presets, press the Set Button repeatedly until PRESET SEARCH appears, then use the ▲/▼ Buttons to select the letter of the desired bank.

Tuning Mode/Zoom: When listening to AM or FM radio, this button toggles between Manual (one frequency step at a time) and Automatic (seeks frequencies with acceptable signal strength) tuning modes. It also toggles between Stereo and Mono modes when an FM station is tuned.

When listening to XM Radio, press the Tuning Mode Button once to view the category name of the current channel. Additional presses will display the artist, song title and channel name.

When the DVD player has been selected, this button performs the Zoom function. Press it to zoom in on a DVD, VCD or JPEG image. Once the on-screen indication of the zoom ratio disappears from the screen, you may use the Navigation Buttons to explore the picture.

Memory/Program: After you have tuned a particular radio station, press this button, then a Numeric Key, to save that station as a radio preset.

For XM Radio, the procedure for saving a preset is a little different. To save the current channel in one of the 40 available preset locations, press the Set Button repeatedly until PRESET SEARCH appears. Use the ▲/▼ Buttons to select a letter (A through E) representing one of the five banks of preset memory slots. Then press the Memory Button, followed by a Numeric Key (1 through 8) for the precise preset memory location you wish to save the channel in.

When the DVD player has been selected, this button performs the Program function, which enables you to program a playlist that changes the order in which tracks or chapters are played.

Tuning: Press these buttons to tune a radio station or XM Radio channel. For the AM and FM bands, and depending on whether the tuning mode has been set to Manual or Automatic, each press will either change one frequency step at a time, or seek the next frequency with acceptable signal strength.

Direct Station Entry/Angle: Press this button before using the Numeric Keys to directly enter a radio station frequency (AM or FM bands only).

When the DVD player has been selected, this button is used for the Angle function. Press it during passages on a DVD where the director has programmed multiple camera angles to view the alternate perspectives. When a JPEG file is on-screen, each press of this button rotates the image by 90 degrees clockwise.

Clear: Press this button to clear a radio station frequency you have started to enter.

When the DVD player has been selected, this button may be used to clear any on-screen displays from view.

Preset Stations/Page +/–: Press these buttons to select a preset radio station.

For XM Radio, first press the Set Button repeatedly until PRESET SEARCH appears, and then use the ▲/▼ Buttons to select the letter of the desired bank of presets.

When the DVD 48 is being used to play a DVD-Audio disc, if the disc contains still images associated with each track, press these buttons to

scroll through the images. The availability of this function depends on how the DVD-Audio disc was authored.

Tone Mode/Return: Press this button to access the tone controls (bass and treble). Use the Navigation Buttons to make your selections.

When the DVD player has been selected, press this button to return to the previous setup menu, or to clear the display if the top-level menu is on screen.

Disc Skip/Audio Mode: This button has no effect on the AVR 347, but is used with some optical disc changers to skip to the next disc.

When the DVD player has been selected, each press of this button toggles the DVD 48's Analog Audio Output setting between Stereo and Multichannel without requiring you to navigate to the Audio Setup menu.

In Stereo mode, a 2-channel downmix of the audio track is available at both the 2-Channel Analog Audio Outputs and at the front left and right channels of the 6-Channel Analog Audio Outputs, with no information available at the other 6-Channel Analog Audio Output jacks. Stereo mode is used when you wish to connect the 2-Channel Analog Audio Outputs directly to a TV for viewing DVDs without turning on the full CP system, or for multiroom operation.

In Multichannel mode, only the front left and right channel information is available at the 2-Channel Analog Audio Outputs, and no center or surround information is present. Each of the 6-Channel Analog Audio Outputs delivers the information appropriate to its channel. Multichannel mode is preferred when using the CP 65 on its own.

Macros: These buttons may be programmed to execute long command sequences with a single button press. They are useful for programming the command to turn on or off all of your components, or for accessing specialized functions for a different component than the one you are currently operating.

Dolby® Surround Mode Selector: The first press of this button will select the last-used Dolby Surround mode, and each additional press will cycle through the variants that are currently available. Not all modes are available with all sources; see the AVR 347 manual for more information.

DTS® Surround Mode Selector/A-B Repeat: The first press of this button will select the last-used DTS Digital mode if DTS processing is available, and each additional press will cycle through the 2.0, 5.1 and DTS-ES® modes. See the AVR 347 manual for more information.

When the DVD player has been selected, this button serves the A-B Repeat function. The first press while a disc is playing selects the beginning of the passage you wish to repeat, and the second press selects the end of the passage. The selected passage will play continuously until the A-B Button is pressed a third time, or play is stopped.

DTS Neo:6® Surround Mode Selector: The first press of this button will select the last-used DTS Neo:6 Surround mode if it is available, and each additional press will cycle through the variants that are currently available. See the AVR 347 manual for more information.

Logic 7® Surround Mode Selector/Random: The first press of this button will select the last-used Logic 7 Surround mode if it is available, and each additional press will cycle through the Cinema, Music and Enhance modes. See the AVR 347 manual for more information.

When the DVD player has been selected, this button serves the Random function. When a CD is playing and no playlist is active, each press of this button turns random track selection on or off.

Night Mode/Subtitle: Press this button to activate Night mode with specially encoded Dolby Digital discs or broadcasts. Night mode compresses the audio so that louder passages are reduced in volume to avoid disturbing others, while dialogue remains intelligible.

When the DVD player has been selected, this button performs the Subtitle function. Press it to select a subtitle language or to turn subtitles off.

> **NOTE:** Due to the variations in how DVD discs are authored, the subtitle languages displayed by the DVD 48 may not accurately reflect the actual languages available on the disc. It is recommended that subtitles be selected using the disc's menu.

Stereo Modes/Repeat: The first press of this button will select the last-used Stereo mode, which may be Surround Off or Two-Channel Processing. Each additional press will change the mode to Surround Off, 5-Channel Stereo or 7-Channel Stereo. When an analog audio source is in use and the AVR 347's Tone Mode control has been set to Out, you may also select Analog Bypass mode, which passes the analog input signal to the volume control, bypassing digital signal processing. See the AVR 347 manual for more information.

When the DVD player has been selected, each press of this button cycles through the available Repeat modes, excluding A-B Repeat.

Track Skip: These buttons have no effect on the receiver, but are used with the DVD 48 and many other source components to change tracks or chapters.

Dim: Press this button to partially or fully dim the AVR 347's front-panel display.

Transport Controls: These buttons have no effect on the receiver but are used to control the DVD 48 and many other source components. By default, when the remote is operating the receiver, these buttons will control the DVD 48.

Record: This button has no function on the AVR 347 or DVD 48. It is used with many audio and video recorders.

Backlight: Press this button to illuminate the buttons on the remote. Press it again to turn the backlight off, or wait for 5 seconds after the last button press for the light to turn off on its own.

The RCP 7 remote control uses three AAA batteries, which are included.

To remove the battery cover located on the back of the remote, firmly press the ridged depression and slide the cover toward the top of the remote.

Insert the batteries as shown in Figure 1, making sure to observe the correct polarity.
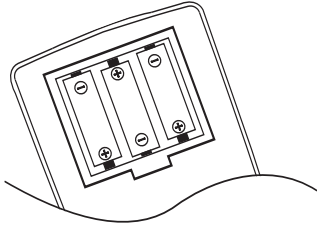
Figure 1 — Remote Battery Compartment

When using the remote, remember to point the lens toward the front panel of the AVR 347 or DVD 48. Make sure no objects, such as furniture, are blocking the remote's path. Bright lights, fluorescent lights and plasma video displays may interfere with the remote's functioning. The remote has a range of about 20 feet, depending on the lighting conditions. It may be used at an angle of up to 30 degrees to either side of the component.

If the remote seems to operate intermittently, or if pressing a button on the remote does not cause the AVR Selector or one of the Input Selectors to light up, then make sure the batteries have been inserted correctly, or replace all three batteries with fresh ones.

PROGRAMMING SOURCES

Programming Sources

The RCP 7 remote is capable of controlling not only the receiver and DVD player included in your CP system, but it may also be programmed to control many brands and models of VCRs, CD players, cable boxes, satellite receivers, cassette decks and TVs, as well as an iPod device (not included) docked in Harman Kardon's optional The Bridge.

It may help to think of the remote as a book with pages. Each page represents the button functions for a different device. In order to access the functions for a particular device, you first need to turn to that page, that is, switch the remote to that device mode. This is done by pressing the AVR Button to access the codes that control the receiver, or the Input Selectors to access the codes for the devices programmed into the remote.

You may have noticed that three of the Input Selectors look different from the others (see Figure 2). For the DVD/CD, TAPE/The Bridge and HDMI 1/HDMI 2 Selectors, there is a primary source, whose name is printed on the button, and a secondary source, whose name is printed above the button.

When the remote is in the device mode for the primary source (e.g., DVD) pressing the device selector will cause it to light in red. When the remote is in the secondary source's device mode, the selector will light in green when pressed.

To switch between the primary and secondary device modes, press the selector twice quickly in succession. The selector will retain this selection until the next time you toggle between the primary and secondary device modes. That is, if you press the DVD/CD Selector twice quickly so that the CD source is activated, then press another source selector, such as Video 1, the next time you press the DVD/CD Selector, the remote will return to the CD device mode.

The RCP 7 remote is factory-programmed to control the AVR 347, the DVD 48 and an iPod docked in The Bridge. If you have other source devices in your system, such as a VCR, or a cable or satellite television set-top box, follow these steps to program the correct codes into the remote:

1. Using the codes in Tables A2–A9 of the Appendix, look up the product type (e.g., cable TV box) and the brand name of your source. The number(s) listed are potential candidates for the correct code set for your particular device.

2. Turn on your source device.

3. This step places the remote in Program mode and varies slightly, depending on which Input Selector is being programmed. Refer to Figure 2.

   a) **DVD, Tape, Video 1, Video 2, Video 3** and **Video 4 Sources:** Press and hold the Input Selector until the Program Indicator LED starts to flash, then release it. Follow the directions in Step 4.

   b) **CD Source:** Press the DVD/CD Input Selector twice quickly so that it turns green. Then press and hold it until the selector relights and the Program LED flashes. Follow the directions in Step 4.

   c) **HDMI 1 Source:** Press and hold the Input Selector until the Program Indicator flashes, then release it. Next, press the Input Selector that corresponds to the device type you want to program into the HDMI 1 mode, i.e., DVD, VCR or CBL/SAT. Then follow the directions in Step 4.

   d) **HDMI 2 Source:** Press and release the Input Selector once, quickly press the Input Selector again so that it turns green, then release it. Now press and hold the Input Selector until the Program Indicator flashes, then release it. Next press the Input Selector that corresponds to the device type you want to program into the HDMI 2 mode, i.e., DVD, VCR or CBL/SAT. Then follow the directions in Step 4.

Figure 2 – Input Selectors

4. Enter a code from Step 1 above.

   a) If the device turns off, then press the Input Selector again to accept the code; the selector will flash. The remote will exit the Program mode.

   b) If the device does not turn off, try entering another code. If you run out of codes, you may 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, enter the code by pressing the Input Selector, which will flash. The remote then exits Program mode.

   NOTE: When you enter a valid three-digit code, the Program Indicator LED will change in color to green. However, entering an invalid code changes the color of the LED to red.

5. Once you have accepted a code, it's a good idea to try using some other functions to control the device. Sometimes manufacturers use the same power code for several different models, while other codes will vary. You may wish to repeat this process until you've programmed a satisfactory code set that operates most of the functions you frequently use.

6. You may find out which code number you have programmed by pressing and holding the Input Selector to enter Program mode. Then press the Set Button, and the LED 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 1.

Table 1 – Remote Control Codes

Source Input	Product Type (circle one)	Remote Control Code
Video 1	VCR, PVR	
Video 2	Cable, Satellite	
Video 3	TV	
Video 4	TV	
HDMI 1	DVD, VCR, Cable, Satellite	
HDMI 2	DVD, VCR, Cable, Satellite	
DVD*	DVD	
CD	CD, CD-R	
Tape	Cassette	

*Do not reprogram the DVD Source selector unless you are replacing the DVD player included in the CP 65 system with another product.

7. After you have programmed a code set to operate a device, test the functions to see which ones may be missing or not operating correctly. You may "learn" individual key codes if you have the device's original remote control by following the procedure below. If you no longer have the device's original remote, you may still connect it to the AVR 347.

Most of the button labels on the remote describe the button's function when used to control the AVR 347 (gray labels) or DVD 48 (blue labels). However, the button may perform a very different function when used to control another device. Refer to the Remote Control Function List, Table A1 in the Appendix, for a list of each button's functions with the various product types.

If you wish, you may program macros, which are preprogrammed code sequences that execute many code commands with a single button press. You may also program "punch-through" codes, which allow the remote to operate the volume, channel or transport controls of another device without having to switch the remote's device mode. See page 13 for instructions on these advanced programming functions.

NOTE: The RCP 7 remote is preprogrammed to operate the transport controls of the DVD 48 when the AVR or VID2 or VID3 device is selected. You may change this punch-through programming at any time, as explained in the Advanced Functions section.

LEARNING INDIVIDUAL KEY CODES

The following keys on the RCP 7 remote may be programmed with individual IR codes that are "learned" from another remote control: Power On/Off, Mute, Sleep/Audio and DSP Surround/Title (Channel Up/Down), Volume Controls, Channel Level/Disc Menu, Speaker/DVD Setup, Digital Input/Drawer Open/Close, Delay/DVD Status, ◄►▲▼ Navigation, Set/Enter, Numeric Keys, Track Skip Up/Down and Transport Controls – a total of 34 buttons.

Follow these steps to learn individual key codes:

1. Place the RCP 7 and the device's original remote so that their IR transmitters face each other end to end, separated by about one inch (see Figure 3). The RCP 7 remote's transmitter also serves as an IR receiver during the learning process.

Figure 3 – RCP 7 and Original Remote, Head to Head

2. Make sure the RCP 7 is in the device mode you want to learn the new key code for by pressing the Input Selector, which should light in red, or green if it is a secondary source on a dual-source selector. If necessary, press a dual-source selector twice to select between the primary and secondary sources. Place the RCP 7 remote in Learning mode by pressing and holding the Learn Button until the Program Indicator flashes amber, then releasing it (see Figure 4).

Figure 4 – Learning Remote Commands

3. On the RCP 7 remote, press and hold the button you wish to program with the new code until the Program Indicator remains steadily lit in amber, then release it.

4. On the device's original remote, press and hold the button whose code you wish to "learn" until the RCP 7's Program Indicator flashes green, then release it.

5. You may program additional buttons by repeating Steps 3 and 4. To exit Learning mode, press the Learn Button once. If you prefer, you may wait for the remote to "time out" and exit Learning mode on its own, but this will take about 30 seconds.

If you make a mistake while learning a code, you may either learn a new code over the old code, or else erase the learned code, which returns the button to the code in the original code set that you programmed into the Input Selector. To erase a single learned code:

1. Make sure the RCP 7 is in the device mode containing the learned code you wish to erase by pressing the Input Selector, which should light in red, or green if the secondary source on a dual-source selector is active.

2. Press and hold the Learn Button until the Input Selector lights and the Program Indicator flashes amber, then release it.

3. Press the Input Selector again and release it.

4. Enter the code "777" by pressing the "7" Numeric Key three times. The Input Selector should flash each time.

5. Press the button whose learned code you wish to erase and release. The Program Indicator will flash green to confirm the erasure.

6. Repeat Step 5 for any other buttons whose learned codes you wish to erase.

7. Press the Learn Button to exit Learning mode, or wait about 30 seconds for Learning mode to time out.

To erase all of the learned codes for a device mode:

1. Make sure the RCP 7 is in the device mode containing the learned code you wish to erase by pressing the Input Selector, which should light in red, or green if the secondary source on a dual-source selector is active.

2. Press and hold the Learn Button until the Input Selector lights and the Program Indicator flashes amber, then release it.

3. Press the Input Selector again and release it.

4. Enter the code "888" by pressing the "8" Numeric Key three times. The Input Selector should flash each time. The Program Indicator will flash green to confirm the erasure.

To erase all of the learned codes on the remote for all device modes, but without erasing other user settings such as product code sets or punch-through programming, follow these steps:

1. Press and hold the Learn Button until the last-used Input Selector lights in red and the Program Indicator flashes amber, then release it.

2. Press any Input Selector and release it.

3. Enter the code "999" by pressing the "9" Numeric Key three times. The Input Selector should flash each time. The Program Indicator will go dark, and the Input Selector you pressed in Step 2 will remain lit for about 10 seconds. Then the Program Indicator will flash green to confirm the erasure, and the remote will automatically exit Learning mode.

The RCP 7 remote control not only operates the AVR 347 and DVD 48, but it also serves as a universal remote that may be programmed to operate many of your other home theater components. The punch-through and macro features add even more flexibility and versatility.

Punch-Through Programming

The RCP 7 remote allows you to select one component for the remote to operate, while simultaneously setting certain groups of controls to operate another component. For example, while using the remote to control video functions on your TV, you may wish to use your cable box to change channels and the AVR to control the volume.

This is possible using punch-through programming.

> **NOTE:** It is not necessary to program the remote to control your DVD player's transport controls while the AVR or a device connected to the VID2 or VID3 inputs is in use, as the remote is preprogrammed at the factory with this function.

To program punch-through control while operating any device:

1. Press and hold the Input Selector (or AVR Selector) for the main device the remote will be operating until the Input Selector lights, the Program Indicator LED flashes and the remote enters Program mode.

2. Select the type of punch-through programming:

   a) To program volume control punch-through, press the Volume Up Button.

   b) To program channel control punch-through, press the Volume Down Button.

> **NOTE:** Do not program channel-control punch-through for the AVR. Doing so will override the Sleep command, which is not accessible in any other way, and the DSP Surround Mode Selector. If you have inadvertently done so, repeat Steps 1 through 3, but press the AVR Selector in both Steps 1 and 3.

   c) To program Transport Control punch-through, press the Play Button.

3. Press the Input Selector (or AVR Selector) for the device whose volume, channel or transport controls you would like to be active while operating the device you selected in the first step. The LED will flash green to confirm the programming.

For example, if you wish to watch your TV (programmed into the Video 3 button) while changing channels using your cable box (Video 2), you would first press the Video 3 Button until the LED flashed. You would then press the Volume Down Button, followed by the Video 2 Button.

To undo punch-through programming, follow the same steps as above, but press the same Input (or AVR) Selector in Steps 1 and 3.

> **NOTE:** As mentioned earlier, the AVR, VID2 and VID3 devices are factory-programmed with transport-control punch-through to operate the DVD player. You may reprogram these selectors following the instructions in Steps 1 through 3 to operate another device, such as a CD player.

> If you wish to reprogram these selectors to have no transport-control punch-through, the process is slightly different. Each of these three selectors has no native transport-control commands. Therefore, when reprogramming them to eliminate transport-control punch-through, in Step 3 you must select one of these three selectors, but not the same one you are reprogramming. For example, to remove transport-control punch-through from the VID2 device, follow the instructions in Steps 1 through 3, but press either the AVR or VID3 Button in Step 3.

Macros

Macros are used to program sequences of up to 19 commands that are executed with a single button press. Macros are well suited for Power On and Off commands, to send out a favorite multidigit channel number with one button press, or to have the ability to send out a code sequence to control another device while the remote is operating one device but with more flexibility than the built-in punch-through controls.

Some commands may not be programmed into macros: Mute, Dim, Channel Up/Down and any of the Surround Mode commands.

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

To program, or "record," a macro, follow these steps:

1. Simultaneously press one of the four Macro Buttons or the Power On Button and the Mute Button at the same time to enter Program mode.

2. Press the Input (or AVR) Selector for each device before you enter commands to be transmitted to that device. This step counts as one of the 19 commands allowed for each macro.

> **NOTE:** Even if you previously switched one of the dual-source Input Selectors (DVD/CD, TAPE/THE BRIDGE, HDMI 1/HDMI 2) to the primary or secondary source prior to programming the macro, the remote always requires you to press any of these selectors *once* to program the macro to select the primary source and *twice* for the secondary source.

3. For the Power On command, do not press the Power On Button. Press the Mute Button instead.

4. Press the Power Off Button to program the Power Off command.

5. Press the Sleep Button to end the programming process.

ADVANCED FUNCTIONS

It isn't possible to "edit" a command within a macro. However, you may erase the macro as follows:

1. Simultaneously press and hold the Mute Button and the Macro Button containing the macro until the Program LED flashes.

2. Press the Surround Button to erase the macro.

Resetting the Remote

To reset the remote to its factory defaults, simultaneously press and hold any Input Selector and the "0" Numeric Key. When the LED flashes amber, enter the code "333". When the green LED goes out, the remote will have been fully reset.
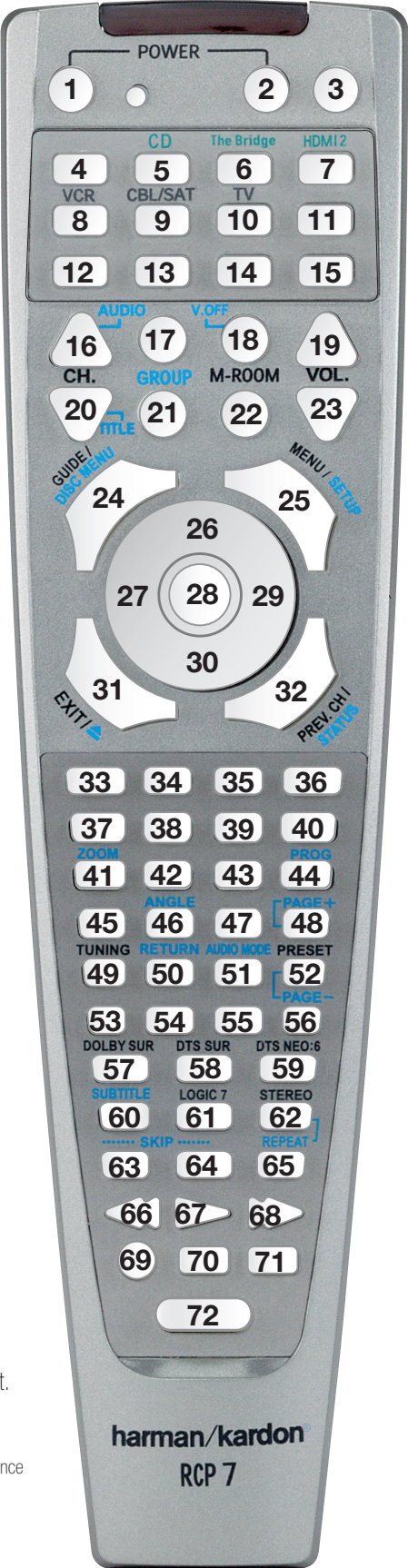
Refer to the numbered buttons in this drawing when using the Function List.

Figure 5 – Remote Control Function List Reference

Table A1 – Remote Control Function List

No.	Button Name	AVR Function	DVD	CD/CD-R	Tape	VCR (VID1)	TiVo (VID1)	CBL (VID2)	SAT (VID2)	TV (VID3/VID4)	The Bridge (DMP)	XM	HDMI 1/2
1	Power On	Power On	Power On	Power On	Power On (AVR)	Power On	Power On/Off	Power On	Power On	Power On	Power On (AVR)	Power On (AVR)	Power On
2	Power Off	Power Off	Power Off	Power Off	Power Off (AVR)	Power Off	TV Power	Power Off	Power Off	Power Off	Power Off (AVR)	Power Off (AVR)	Power Off
3	Mute	Mute	Mute (AVR)	Mute (AVR)	Mute (AVR)	Mute	Mute	Mute	Mute	Mute	Mute (AVR)	Mute (AVR)	Mute
4	AVR	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select	AVR Select
5	DVD/CD	DVD Input Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Select	DVD Input Select
		CD Input Select	CD Select	CD Select	CD Select	CD Select	CD Select	CD Select	CD Select	CD Select	CD Select	CD Select	CD Input Select
6	Tape/ The Bridge	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select	Tape Select
		The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select	The Bridge (DMP) Select
7	HDMI 1/HDMI 2	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select	HDMI 1 Select
		HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select	HDMI 2 Select
8	VID 1 (VCR)	Video 1 Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select	VCR Select
9	VID 2 (CBL/SAT)	Video 2 Select	CBL/SAT Select	CBL/SAT Select	CBL/SAT Select	CBL/SAT Select	CBL/SAT Select	CBL Select	SAT Select	CBL/SAT Select	CBL/SAT Select	CBL/SAT Select	CBL/SAT Select
10	VID 3 (TV)	Video 3 Select	TV Select	TV Select	TV Select	TV Select	TV Select	TV Select	TV Select	TV Select	TV Select	TV Select	TV Select
11	VID 4	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select	Video 4 Select
12	XM	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select	XM Select
13	AM/FM	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select	Tuner Select
14	6/8CH	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select	6/8 Ch. Input Select
15	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn	Learn
16	Sleep/Audio	Sleep	Audio			Channel +	Channel +	Channel +	Channel +	Channel +			Channel +
17	Test Tone	Test Tone											
18	T/V/V.Off		V. OFF	Input Select		TV/VCR	TV Input	TV/CBL	TV/SAT	TV/VCR			TV/Video
19	Vol Up	Volume Up*		Volume Up						Volume Up			Volume Up
20	Surr/Title	DSP Surround Mode Select	Title	CDR Select		Channel –	Channel –	Channel –	Channel –	Channel –			Channel –
21	OSD/Group	OSD	Group	Program		OSD	Live TV	OSD	OSD	OSD			OSD
22	M-Room/HDMI	Multiroom	HDMI										
23	Vol Down	Volume Down		Volume Down						Volume Down			Volume Down
24	CH./Disc Menu	Channel Trim	Disc Menu	Continuous Play		Input	Guide	Info	Info				Guide
25	Speaker/Setup	Speaker Setup	Setup	Intro Scan		Menu	Menu	Menu	Menu	Menu	Menu		Menu
26	▲	Move/Adjust Up	Up			Up	Up	Up	Up	Up		Up	Up
27	◄	Move/Adjust Left	Left			Left	Left	Left	Left	Left	Scroll –	Left	Left
28	Set	Set	Enter			Enter	Select	Enter	Enter	Enter	Select	Set	Set/Enter
29	►	Move/Adjust Right	Right			Right	Right	Right	Right	Right	Scroll +	Right	Right
30	▼	Move/Adjust Down	Down			Down	Down	Down	Down	Down		Down	Down
31	Digital/Open/Close	Digital Input Select	Open/Close	Open/Close		Eject	Return/Exit						
32	Delay/Status	Delay Adjust	Status			Speed		Prev. Channel	Prev. Channel	Prev. Channel			Prev. Channel
33	1	1	1	1		1	1	1	1	1		1	1
34	2	2	2	2		2	2	2	2	2		2	2
35	3	3	3	3		3	3	3	3	3		3	3
36	4	4	4	4		4	4	4	4	4		4	4
37	5	5	5	5		5	5	5	5	5		5	5
38	6	6	6	6		6	6	6	6	6		6	6
39	7	7	7	7		7	7	7	7	7		7	7
40	8	8	8	8		8	8	8	8	8		8	8

Table A1 (continued)

No.	Button Name	AVR Function	DVD	CD/CD-R	Tape	VCR (VID1)	TiVo (VID1)	CBL (VID2)	SAT (VID2)	TV (VID3/VID4)	The Bridge (DMP)	XM	HDMI 1/2
41	Tun-M/Zoom	Tuning Mode	Zoom	Repeat								Tuning Mode	
42	9	9	9	9		9	9	9	9	9		9	9
43	0	0	0	0		0	0	0	0	0		0	0
44	Memory/Program	Memory	Program	Time								Memory	
45	Tuning Up	Tuning Up		Track Direct		Cancel		PPV	Cancel	Sleep		Tuning Up	
46	Direct/Angle	Direct Tuner Entry	Angle	Random Play				FAV	FAV				Angle/FAV
47	Clear	Clear	Clear	Clear		Clear	Clear	Bypass	Next			Clear	
48	Preset Up/Page+	Preset Tune Up	Page+	+10				Music	Alt			Preset Up	
49	Tuning Down	Tuning Down		Track Increment								Tuning Down	
50	Tone/Return	Tone Mode	Return	Program		Tone Mode		Tone Mode	Tone Mode	Tone Mode			
51	D. Skip/Audio Mode	Disc Skip (DVD)	Audio Mode	Disc Skip			Skip						
52	Preset Down/Page–	Preset Down	Page–									Preset Down	
53	M1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1	Macro 1
54	M2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2	Macro 2
55	M3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3	Macro 3
56	M4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4	Macro 4
57	Dolby Surround	Dolby Modes											
58	DTS/A-B	DTS Digital Modes	A-B Repeat										
59	DTS Neo:6	DTS Neo:6 Select											
60	Night/Subtitle	Night Mode Select	Subtitle On/Off	CDP Select									
61	Logic 7/Random	Logic 7 Select	Random										
62	Stereo/Repeat	Stereo Mode Select	Repeat										
63	Skip Down	Skip – (DVD)	Step –	Skip –		Scan –	Thumbs Down	Skip – (DVD)	Skip – (DVD)	Skip – (DVD)			
64	Skip Up	Skip + (DVD)	Step +	Skip +		Scan +	Thumbs Up	Skip + (DVD)	Skip + (DVD)	Skip + (DVD)			
65	Dim	Dimmer	Dimmer										
66	Rewind (◄◄)	R. Search (DVD)	R. Search/Slow	R. Search	Rewind	Rewind	R. Search	R. Search (DVD)	R. Search (DVD)	R. Search (DVD)	Skip–/R. Search		R. Search
67	Play (◄►)	Play (DVD)	Play	Play	R. Play/F. Play	Play	Play	Play (DVD)	Play (DVD)	Play (DVD)	Play		Play
68	Fast-Forward (►►)	F. Search (DVD)	F. Search/Slow	F. Search	Fast Fwd	Fast Fwd	F. Search	F. Search (DVD)	F. Search (DVD)	F. Search (DVD)	Skip+/F. Search		F. Search
69	Record			Record	Record/Pause	Record	Record						Record
70	Stop	Stop (DVD)	Stop	Stop	Stop	Stop	Slow	Stop (DVD)	Stop (DVD)	Stop (DVD)			Stop
71	Pause	Pause (DVD)	Pause	Pause		Pause	Pause	Pause (DVD)	Pause (DVD)	Pause (DVD)	Pause		Pause
72	Light	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight	Backlight

NOTE: When any of the transport controls are pressed while the remote is in AVR, Video 2 or Video 3 mode, the remote will automatically switch to DVD mode and the command will be applied to the DVD player. If you then press a button native to the original mode, e.g., Volume Down for the AVR, the remote will revert to the original mode. See Punch-Through Programming, as described in the Advanced Functions section, for more information.

APPENDIX

Refer to Tables A2 through A9 when programming the codes for your components into the remote.

Table A2 – 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								
DIGILINK	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	
GOLDSTAR/LG	101	110	122	128	132					
GRUNDIG	193									
HALL MARK	128									
HARMAN KARDON	201									
HITACHI	123	128	132	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						
LLOYTRON	172	173								

TV Manufacturer/Brand	Setup Code Number							
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							
TATUNG	063							
TECHNICS	181							
TECHWOOD	128							

Table A2 (continued)

TV Manufacturer/Brand	Setup Code Number					
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 A3 – Remote Control Product Codes – VCR

VCR Manufacturer/Brand	Setup Code Number			
AIWA	040			
AKAI	048	108	109	126
AMPRO	076			
ASA	134			
AUDIO DYNAMICS	018	048		
BROKSONIC	110	147		
CANDLE	134	135		
CANON	135	140		
CAPEHART	094			
CITIZEN	134			
CRAIG	045	116		
DAEWOO	017	094	104	
DAYTRON	094			
DBX	018	048		
DYNATECH	040			
EMERSON	013	040	042	110	112
FISHER	017			
FUNAI	040			
GE	076	095	124	
GO VIDEO	113			
GOLDSTAR/LG	018	107		
HARMAN KARDON	002	003	018	049
HITACHI	040	048		
JC PENNEY	018	045		
JENSEN	048			
JVC	018	048	111	132
KENWOOD	020	048		
LLOYD	040			
LXI	020	040		
MAGIN	045			
MAGNAVOX	040			

Table A3 (continued)

VCR Manufacturer/Brand	Setup Code Number						
MARANTZ	018						
MEMOREX	017	020	040	052	053	054	076
MGA	049						
MITSUBISHI	049	131					
MULTITECH	040						
NAD	139						
NATIONAL	140						
NEC	018	048					
NORDMENDE	048						
OPTIMUS	159						
ORION	147						
PANASONIC	125	150	167	172			
PHILCO	040						
PHILIPS	040	075					
PORTLAND	094						
PULSAR	076						
QUASAR	001	125					
RADIO SHACK	055	134	140	142	158	159	
RCA	095	124	125	157	172		
REALISTIC	017	020	040	045	159		
SALORA	020						
SAMSUNG	045	051	095	105	109		
SANSUI	048	116	147				
SANYO	017	020					
SCOTT	110	112					
SEARS	017	020					
SHARP	129	156					
SONY	080	129					
SOUNDESIGN	040						
SYLVANIA	040						
SYMPHONIC	040						
TANDY	017	040					
TASHICO	134						
TATUNG	048						
TEAC	040	048					
TEKNIKA	040						
THOMAS	040						
TiVo	004	005	006	007	008	009	010	012
TMK	013						
TOSHIBA	112	155					
TOTEVISION	045						
UNITECH	045						
VECTOR RESEARCH	018						
VIDEO CONCEPTS	018	040					
VIDEOSONIC	045						
WARDS	040	045	112				
YAMAHA	018	040	048				
ZENITH	040	050	076	083			

APPENDIX

Table A4 – Remote Control Product Codes – 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								
GOLDSTAR/LG	016	087							
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
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					

Table A4 (continued)

CD Manufacturer/Brand	Setup Code Number									
RCX	169									
REALISTIC	058	093	095	104	105	108	164	166		
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 A5 – Remote Control Product Codes – DVD

DVD Manufacturer/Brand	Setup Code Number			
APEX DIGITAL	061			
DENON	019	051		
GE	003	004		
GOLDSTAR/LG	005	055	064	066
HARMAN KARDON	001	002	007(Default)	068
JVC	006			
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 A6 – 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						
KATHREIN	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							
TEECOM	330	333	390	391	393	409			
TOSHIBA	302	426	460	461	462				
UNIDEN	323	332	348	349	350	351	354	355	381	383
	389	403	466	479	480				
ZENITH	384	385	387	394	419	488			

Table A7 – Remote Control Product Code – TAPE

TAPE Manufacturer/Brand	Setup Code Number
HARMAN KARDON	001

Table A8 – Remote Control Product Codes – CBL

CBL 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
LINSAY	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				
REMBRANT	032								
SAMSUNG	003	072	186						

APPENDIX

Table A8 (continued)

CBL Manufacturer/Brand	Setup Code Number				
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	
ZENTEK	116				

Table A9 – Remote Control Product Codes – THE BRIDGE/DMP

DMP Manufacturer/Brand	Setup Code Number
HARMAN KARDON	001
TEN TECHNOLOGIES	002

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