



OPERATIONAL TRAINING

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PURPOSE OF TRAINING GUIDE

The purpose of this training guide is to supply you with the knowledge needed to fully understand and install a Harman Kardon® home theater system. Harman Kardon implemented several key technological advantages to improve the ease of use and flexibility of its home theater receivers. Please take the time to carefully complete this training guide and answer all questions when prompted.



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ITEMS NEEDED FOR
THIS EXERCISE

1. AVR 3600
2. Video display with built-in speakers and an HDCP HDMI™ input
3. HDMI cables (two)
4. One analog audio cable
5. DVD 48BK player or BDP 1
6. 7.1 speaker system
7. Speaker wire
8. Subwoofer cable
9. Wire strippers
10. The Bridge III (included)
11. iPod



OUT-OF-BOX
EXPERIENCE

Upon opening the box for the AVR 3600, there are some critical items that you will need to locate to complete this training section:

1. Main remote control
2. Zone II remote control
3. EzSet/EQ™ microphone
4. Batteries
5. The Bridge III
6. Owner's manual
7. Quick-start guide

Upon opening the box for the DVD 48BK or BDP 1, there are some critical items that you will need to locate to complete this training section:

1. Remote control
2. Mini IR patch cable
3. Batteries
4. Owner's manual



CONNECTIONS

To ensure that you are able to properly configure the receiver during this exercise, connect the cables in the following sequence and confirm that each cable listed below is connected by placing a check next to each number.

1. ___ Connect one HDMI cable from the HDMI monitor output on the AVR 3600 to the HDMI input on the video display.
2. ___ Connect one HDMI cable from the DVD player to the HDMI 1 input on the back of the receiver.
3. ___ Connect one 1M analog audio cable from the DVD player to the Analog 2 input on the back of the receiver.
4. ___ Connect the speakers to each of the locations L/R, C, SL/SR and SBL/SBR using the speaker wire.
5. ___ Connect the subwoofer cable from the subwoofer pre-out on the AVR 3600 and plug into the LFE input on subwoofer.
6. ___ Connect The Bridge III to the proprietary connector on the back of the receiver.
7. ___ Using a mini IR patch cable, connect the DVD player's IR In jack to the receiver's IR Out jack.
8. ___ Plug in power for all devices to provide power to the system.

SETUP SOURCES

In this section you will be configuring the assignable inputs on the back of the receiver to set up your DVD player:

1. Set display to its HDMI input and turn on the receiver.
2. On the bottom of the main room remote, press the Setup button to access the receiver's graphical user interface.
3. Press OK on the remote to access "Setup Source," and a slide-in menu will appear on the right side of the screen with the list of sources (Cable/Sat, DVD, etc.). You should see the screen below.



4. Move the cursor down to highlight "DVD" and press OK.
5. Scroll down to "Video Input from Source," press OK and select "HDMI 1" from the list of options.
6. Scroll down to "Audio Input from Source," press OK and select "HDMI 1" from the list of options if it is not already selected.
7. Confirm under "Surround Modes" that "Auto Select" is active. This will automatically detect the best surround mode to engage in from the source material (including the new Dolby True HD and DTS-HD Master Audio™ formats from Blu-ray Disc™ players).
8. While in the setup menu for DVD, move the cursor down to "Zone 2 Audio," press OK and select "Analog 2."
9. Before exiting the "Setup Source" menu, list some other settings you can make by source.

10. Press the Back button until you exit the menu completely.

TESTING CONFIGURATIONS

To test for proper configuration, please follow the steps below and answer "Yes" to indicate proper functioning. If you cannot answer yes, please revisit the "Setup Source" section above.

1. Select "DVD" from the direct source buttons at the top of the remote. Are you looking at a picture from your DVD player? _____
2. Are you getting sound? _____
3. Did the receiver auto-select the correct surround mode? _____

CALIBRATING SPEAKERS FOR ROOM ACOUSTICS

In this section, you will be using Harman Kardon's EzSet/EQ equalization to automatically set EQ, speaker size, distance and crossover for your speaker system.

1. Insert the EzSet/EQ microphone jack into the headphone jack on the front of the receiver.
2. Place the EzSet/EQ microphone in the listening position at ear level.
3. Press the Setup button at the bottom of the remote control to access the receiver's graphical user interface.
4. Move the cursor down to "Speaker Setup" and press OK. You should be looking at the screen below.



5. Highlight "Automatic Setup – EzSet/EQ" and press OK.
6. Select "Continue."
7. Select proper speaker configuration (5.1 or 7.1).
8. Testing has started. Remain quiet and confirm that the appropriate tones are coming from the correct speaker. If not, hit "Cancel" and check the speaker wire connections and speaker placement.
9. After the test has been completed correctly, select "Continue" for the EQ process to begin.
10. When completed, a screen will appear that will indicate the changes that have been made.
11. You can manually reconfigure the speakers or adjust settings established by EzSet/EQ optimization by accessing the "Manual Setup" option in the "Speaker Setup" menu. EQ settings cannot be manually adjusted.

MULTIROOM
SETUP

The AVR 3600 is equipped with three possible multiroom (Zone 2) applications:

1. Assignable SBR/SBL channels
2. Multiroom pre-amp outputs
3. A-BUS[®] connectivity, which is a means of distributing audio, power and IR control over Cat. 5 to multiple rooms with the addition of the following A-BUS hubs and keypads:
 - ABH-4
 - ABH-4000
 - AB-1
 - AB-2

NOTE: As long as Zone 2 is set to “On,” A-BUS connectivity is active.

For this exercise, we will be focusing on the most common multiroom application, using the assignable channels.

1. Press the Setup button to access the receiver’s graphical user interface.
2. Highlight “Zone 2” to begin configuring the multiroom source and master volume. You should see the screen below:



3. Turn “Status” to “On.”
4. Under “Source,” select “DVD.”
5. Set “Surround Back Amps” to “Zone 2.”
6. The main room remote has discrete IR codes for Zone 2. Simply flip the toggle switch on the bottom of the remote from Zone Select 1 to Zone Select 2:



7. Now press the following buttons and describe what happens.
 - a. Volume Up _____
 - b. Volume Down _____
 - c. Play _____
 - d. Next Track _____
 - e. Stop _____
 - f. DVD Source button _____
 - g. Radio _____
 - h. The Bridge _____
 - i. Next Track _____
 - j. Press Power Off on the remote. What happened?

GETTING MORE
OUT OF YOUR HK
RECEIVER

In this section, you are going to access advanced features in the receiver to provide you with a greater understanding of the capabilities of the AVR 3600 and what separates Harman Kardon from the competition.

- 1080p up-scaling from all sources
- Video adjustment by source
- Manual speaker adjustments
- Advanced system settings
- iPod integration

Before starting, verify that the toggle switch on the bottom of the remote is set on Zone Select 1. If not, please do so before continuing.

1080p Up-scaling:

There are two ways this can be accomplished:

1. When setting up individual source devices
2. In System Settings

Either way, you will be prompted to select the maximum resolution your display can handle. Please answer the following questions.

1. When setting up Source Device, select "Resolution to Display." What are your choices?

2. When you change the resolution to the display from 720p to 1080p, what happens?

3. What processing chip does Harman Kardon use to implement 1080p up-scaling from all sources?

Video Adjustments by Source:

Please complete the following and answer all questions:

Select "Setup Source" in the main menu, and then select "DVD." Make sure the DVD player is turned on and playing a movie.

1. Select "Video Modes." What are your options?

2. Select "Movies." Describe the changes in the picture below.

3. Select "Custom." What are your adjustment options?

4. What is the consumer benefit of having the ability to adjust picture quality by source device?

Manual Speaker Adjustments:

Please complete the following and answer all questions.

Select "Speaker Setup" in the main menu and access "Manual Setup."

1. What is your list of options?

2. When you select "Number of Speakers," what happens in the diagram when you turn off the SBR/SBL speakers?

3. When you select "Crossover Size," what appears?

4. Still in "Crossover Size," what happens when you select "Front Right/Front Left" and change the crossover from 120Hz to Large?

5. Are you still able to manually adjust size, distance and level after EzSet/EQ optimization has been completed?

6. What is the consumer benefit of being able to manually adjust settings?

Dolby Volume:

Please complete the following and answer all questions.

Dolby Volume controls fluctuations in volume within a source utilizing a Leveler Module and re-creates the reference presentation that was heard in the recording studio (meaning you will hear an improvement in performance at lower listening levels) utilizing a Modeler Module.

The default Dolby Volume calibration is set to 88dB. To properly adjust for your speakers, press Setup, select "System Settings" and scroll down to "Dolby Volume Calibration Offset." Here you can adjust the calibration from -10dB to +10dB. (Ex: If you have speakers that are 91dB, adjust the calibration offset to +3dB). **Please adjust to the proper sensitivity of your speakers before proceeding.**

Press the Setup button to access the main menu and select "Setup Source." In this menu you have the ability to set Dolby Volume to "Off," "Low," "Medium" or "Max."

NOTE: Turn off Dolby Volume for high-resolution audio material (DTS 96/24 and higher, such as Dolby TrueHD and DTS-HD Master Audio).

The level of processing can be adjusted to your preference.

- **LOW:** Only Dolby Modeler is active.
- **MEDIUM:** Both Modeler and Leveler are active; Leveler Module has a level of 3.
- **MAX:** Both Modeler and Leveler are active; Leveler Module has a level of 9.

Play a movie and adjust the settings. Please describe what you hear at each setting.

LOW: _____

MEDIUM: _____

MAX: _____

Advanced System Settings:

Please complete the following and answer all questions.

Press the Setup button to access the main menu and select "System." In this menu, you have the ability to make changes to affect the overall functioning of the receiver.

1. What are your options?

2. Select "Front Panel Dimmer." What changes occur when you change the percentages?

3. Under "General AVR Settings," you have the ability to set language, default volume, volume units and units of measurement (feet or metric). What are the three remaining choices?

4. Describe what happens when you turn on HDMI audio to the display.

5. What is the consumer benefit behind being able to send audio over HDMI from the receiver to the display?

6. What are the options under "Menu Appearance"?

iPod Integration:

Before starting this section, verify that your iPod is docked into The Bridge III. As you saw above, a setting in the receiver can be activated to charge your iPod while docked.

Please complete the following and answer all questions.

1. Select "Bridge" as your source.
2. What information appears on your display?

3. Using the main room remote, navigate your iPod and detail your experience below in terms of ease of use, response time, etc.

4. What is the consumer benefit of having an iPod-compatible docking unit included in the box?

NOTE: All photos and videos from your iPod will be scaled to 1080p.



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