HARMAN KARDON® AVR 247/AVR 347 SOFTWARE UPGRADE INSTRUCTIONS

Harman Kardon is pleased to offer this software upgrade to improve the audio and video performance of your AVR 247 or AVR 347 by updating its internal operating system and video-processing software. Unlike many consumer audio products, which are designed with "fixed" memory, these Harman Kardon® products feature flash memory that is upgradeable through a standard RS-232 serial port. To install the software, please follow these instructions. If you have any questions, consult our Web site at www.harmankardon.com.

Important Note:

This software is specially designed for use with Harman Kardon AVR 247 and AVR 347 receivers. Use with any other models or brands may cause damage to the product. DO NOT USE THIS SOFTWARE WITH ANY OTHER PRODUCTS.

System Requirements

To install the software upgrade, you will need to purchase a standard RS-232 connection cable. Do not use a "null modem" cable, as it uses connection links that are not compatible with your AVR. If the computer you plan to use for the upgrade is not equipped with a serial port, we have found that many name-brand USB-to-serial-port adapters will provide the needed connection. We cannot guarantee that all such adapters will work.

You will also need to have access to a computer that is close enough to be connected to the AVR being upgraded. The minimum system requirements for the computer are:

• Processor: Intel® Pentium® II processor or equivalent, or higher

• Operating system: Windows® 2000 SP4 or higher, Windows XP or Windows Vista® (for Windows 2000 or Windows XP, your system may require you to have "administrator" user rights)

• Hard-drive space: 10MB available

• System RAM: 128MB

• CD-ROM drive (when using the CD-ROM version of the program)

• RS-232 serial port

Installation Instructions

Upgrading your receiver is easy but, for the upgrade to work properly, it is important to precisely follow the instructions below. PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE PROCEEDING.

• Upgrading your unit will erase all system memories. This means that any configuration settings or tuner presets that you have entered will be lost. To make it easier to reestablish the settings after completing the upgrade, you may wish to write down your current system configurations using the worksheets that are part of this software package. To print those worksheets, use Windows Explorer or another file management program to locate the **Worksheets.pdf** file in the directory where the upgrade files have been saved. Click on the file to open it with Adobe® Reader,® and then print copies as needed.

• Press in the **Main Power** switch on your AVR, but leave the receiver in Standby mode.

• If you are using files downloaded from the Harman Kardon Web site to upgrade the AVR, use Windows Explorer, or any other file-management program, to locate the folder where you have downloaded the upgrade file. Click on the file named **HKAVRupgrade.exe**. The file will then automatically unpack all of the files needed to upgrade your AVR.

• If you are loading the upgrade from a CD-ROM, insert the disc in your computer's drive.

• Locate the directory for the CD-ROM or the downloaded files and click on the file named **"HK_Upgrader.exe."** It is easy to recognize; depending on the display mode for your file manager, the icon will be a stylized version of the volume control knob on your AVR.

• A new window will open on your computer screen when the Loader program starts. Click **"Continue"** to proceed.

• You will be reminded to record your receiver's settings if you have not already done so. Click **"Continue"** to proceed.

• The next screen contains the End User License Agreement that covers the software upgrade. Please read this important legal document, using the scroll bar on the right side of the window to move down through the copy. If you agree to the terms of the Agreement, click **"I accept this license agreement"** and then click **"Continue"** to proceed. Otherwise, click on **"I do not accept this license agreement"** to cancel the upgrade and exit the Loader program.

• When the screen changes, you will be prompted to enter the directory location where the files for this upgrade are located. Click **"Browse"** to open a file-finder window, and then navigate to the correct directory. When the location is correct, the file names will automatically appear in the "Current Selections" window. Click **"Continue"** to proceed.

• Following the instructions on the next screen, connect the serial cable to both the AVR and your computer (or the USB-to-serial-port adapter, if used). Next, use the pulldown tab to select the serial port used for the connection between your computer and the AVR. If there is only one serial port, the most common setting is **"COM 1,"** but if there are multiple ports, if you are using a laptop in a docking station or if you are using a USB-to-serial-port adapter, you may have to select a different COM port. Depending on your computer system, you may have to return to this screen and choose a different port if the one originally selected does not connect properly. When a COM port has been selected, click **"Continue"** to proceed.

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- If your AVR is not already in Standby mode with amber-colored lighting around the **Standby/On** and **Main Power** switches, follow the instructions to place the unit in Standby mode. Click **"Continue"** when you are ready to proceed.

- The final step before the system upgrade begins is to place your AVR in the Download mode and reset it. Using the tip of a pen or an unbent paper clip, press in on the switch behind the small hole to the right of the RS-232 connector on the back panel of the AVR. The switch should not protrude from the back panel; if you are in doubt as to whether the switch is in the correct position, try pressing it two or three times until you get the feel for whether the switch is "in" or "out." After placing the AVR in Download mode, press the **Reset** switch on the left side of the RS-232 connector. When both of these steps have been completed, click **"Continue"** to proceed.

- The next screen starts the software download to your AVR's DSP and Main Controller (MCU). Click **"Upgrade"** to start the process, which should take approximately five minutes.

Important Note:

Once the upgrade starts, do not interrupt it by turning your AVR off or exiting the upgrade program on your computer. Doing so may cause the upgrade to fail and possibly damage your receiver.

- The upgrade will begin immediately; as it proceeds, you will see messages in the window describing the upgrade steps. A progress bar will also give you an indication of the upgrade's status. When a message appears to indicate that the upgrade is complete, click **"Continue"** to proceed.

- ○ If the upgrade does not begin within 30 seconds, or if you see an error message either inside the Loader program or as a pop-up from your computer, the most likely problem is an incorrect COM-port selection. If an error message appears, click **"Back"** until you are at the "Connect Serial Cable and Select Port" screen. Select a different COM port and then click **"Continue,"** making certain that you reset the AVR when prompted.

- As instructed on the next screen, you should now return your AVR to Normal mode by using a pen tip or unbent paper clip to press the **Operate/Download** switch so that it is in the out or normal Operate mode. Next, reset the unit again by pressing in on the Reset button. Click **"Continue"** when both of these steps are completed.

- You will now need to turn your AVR on. Press the **Standby/On** switch on the front panel and then wait at least 30 seconds before clicking **"Continue"** to go to the next step.

- On the next screen, click **"Upgrade"** to load the new software for the unit's video-processing system. As with the DSP/MCU software upload, it is important that you do not interrupt this process by turning off your computer or the AVR. When the software is loaded, an on-screen message will instruct you to click **"Continue"** to proceed.

- Put the AVR in **Standby** mode by pressing the front-panel **Standby/On** switch. Click **"Continue"** to proceed.

- The last step in the upgrade process is to do a system reset by pressing the **Tone Mode** button on the front panel. Press and hold the button for five to 10 seconds; release it when the AVR turns on and the word **"RESET"** appears in the front-panel display. Click **"Continue"** to go to the final screen.

- The final screen will remind you that, because the upgrade and reset process erases any of the system configuration data and tuner presets stored in your receiver, it is important that you reenter that data. Follow the instructions shown in your owner's manual to reenter the data copied to the worksheet files supplied with this upgrade package, or enter new settings. You should also recalibrate the system's speaker and room-equalization settings using the EzSet/EQ™ process.

To check if the upgrade was successful, turn on your AVR and press **1-2-3-4-SET** on the remote control to display the version number in the front-panel display. If it reads as shown below, your unit is now loaded with the proper software. If a different number appears, please repeat the upgrade process.

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02-02-2008     02
HFW V2.4.22.1
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Write this upgrade information in your owner's manual so that you'll have it available for reference. When new software is made available through www.harmankardon.com, it will show the number of the latest version, and you will need this information to see if an additional upgrade is required.

CONGRATULATIONS! With the completion of the upgrade process, your Harman Kardon AVR is now not only as good as new – it will perform even better than it did when you first bought it. We wish you many years of happy listening!

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