

# HARMAN KARDON® AVR 254/AVR 354 SOFTWARE UPGRADE INSTRUCTIONS

This Harman Kardon® software upgrade will improve the performance of your AVR 254 or AVR 354 by updating its internal operating system, DSP (digital signal processing) firmware and video-processing software. Unlike many consumer 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 the Harman Kardon Web site at [www.harmankardon.com](http://www.harmankardon.com).

## Important Note:

Harman Kardon has specially designed this software for use with Harman Kardon AVR 254 and AVR 354 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 your computer is not equipped with a serial port, you may use one of the USB-to-serial-port adapters listed below that have been tested for interoperability with the AVRs.

- Gigaware™ model 26-949
- StarTech.com model ICUSB232
- IOGEAR model Z-GUC232A

Most brand-name adapters will also work, but due to the wide variety of computers, operating systems and adapters, we cannot guarantee that other adapters will work in all situations. You will also need to have access to a computer that is close enough to be connected to the AVR that you are upgrading. The minimum system requirements for the computer are:

- Processor: Intel® Pentium® II processor or equivalent or higher

- Operating system: Windows® 2000 SP4 or higher (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 follow the instructions below precisely. The upgrade will take about 45 minutes. Once it begins, you must complete the entire process in one session. Please allow sufficient time to run through all the steps. **PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE PROCEEDING.**

- Upgrading your unit will erase all system memories. You will lose any configuration settings or tuner presets that you have entered. 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 the 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 the Adobe® Reader® tool, and then print copies as needed.
- Press in the **Main Power** button on your AVR, but leave the AVR in the 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\_Updater.exe**. It is easy to recognize; depending on the display mode for your file man-

ager, the icon should be a stylized version of the volume-control knob on your AVR.

- A new window with the “Welcome” screen will open 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 for this software upgrade. Please read this important 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 location where the files for this upgrade are located. Click “**Browse**” to open a file-finder window, and then navigate to the correct folder. Click on that folder and then click “**Open**.” Note that 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 to the USB-to-serial-port adapter, if you are using one). Next, use the pulldown tab on your screen to select the serial port 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 or if you are using a USB-to-serial-port adapter, you may have to select a different COM port. When you have selected a COM port, click “**Continue**” to proceed. You may have to return to this screen and choose a different port if the one that you originally selected does not connect properly.
- If your AVR is not already in Standby mode with amber-colored lighting around the **Standby/On** and **Main Power** buttons, press the **Standby/On** button. Click “**Continue**” when you are ready to proceed.
- The final step before the system upgrade begins is to place your AVR in Download mode and reset it. Using the tip of a pen or an unbent paper clip, press in on the **Operate/Download** button behind the small hole to the right of the RS-232 connector on the rear panel of the AVR. The button does not protrude from the panel; if you are in doubt as to whether the button is in the correct position, try pressing it two or three times until you get the feel for whether it is “in” or “out.” After placing the AVR in Download mode, press the **Reset** button on the left side of the RS-232 connector. The **Reset** button is deeply recessed. Press it by “feel,” using the pen or paper clip. When both of these steps have been completed, click “**Continue**” to proceed.
- When the next screen appears, click “**Upgrade**” to start the process.



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## 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 AVR.

- Once you click “**Upgrade**,” your computer will take 10 to 15 seconds to establish a communications link with the AVR. After that, the first part of the new DSP firmware will begin to load, as indicated by the movement of the progress bar.
  - If the upgrade does not begin within 30 seconds, or if an error message appears inside the loader’s dialog box, the most frequent problem is either an incorrect COM-port selection or the position of the **Operate/Download** button. First, check to make sure that it is in the Download position, press the **Reset** button and then click “**Upgrade**” again. If the error message appears again, 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.
- A message inside the loader window will let you know when the first section of the DSP firmware has successfully been loaded into your AVR. As directed, click “**Continue**” to proceed to the next step.
- As instructed on the next screen, return your AVR to Normal mode by using a pen tip or unbent paper clip to press the **Operate/Download** button so that it is in the Out position or Operate mode. Next, press the **Standby/On** button on the front panel to turn the unit back on.
- Once you have turned on the AVR, it will automatically begin to transfer the new firmware into its flash memory. During this process, messages will appear in the AVR’s front-panel display as the AVR erases current firmware, reads the new data and writes the new data into its memory, followed by some additional internal-processing steps. When a WRITE COMPLETE message appears on the bottom line of the front-panel display, this part of the process is complete. Press the **Standby/On** button to put the AVR back in Standby mode and then click “**Continue**” to proceed.
- As directed, place the AVR back in Download mode by once again pressing in on the rear-panel **Operate/Download** button. Press the **Reset** button and then click “**Continue**” to proceed.
- The next screen initiates the loading of the second part of the new DSP firmware. Click “**Upgrade**” to start the data transfer. As with the first part of the DSP firmware, you will see the progress bar move until the message in the loader box indicates that the upload is successful. Click “**Continue**” to proceed when instructed.
- As you have done for the first half of the firmware, follow the instructions on the next screen and press in on the **Operate/Download** button to place it in Operate mode. Press the **Reset** button. Next, press the **Standby/On** button to turn the AVR back on.
- When the AVR is turned on, the AVR will again transfer the new firmware into its flash memory. During this process, you will see the same series of messages in the AVR’s front-panel display that appeared while the first part of the DSP software was loading. When the WRITE COMPLETE message appears, the DSP is completely updated. Press the **Standby/On** button to place the AVR back in Standby mode. Click “**Continue**” to proceed.
- Place the AVR back in the Download mode by once again pressing in on the rear-panel **Operate/Download** button. Press the **Reset** button and then click “**Continue**” to proceed.
- When the “**MCU Upgrade**” screen appears, click “**Upgrade**” to load the new software. When the progress bar moves all the way to the right side of the window and the MCU UPLOAD SUCCESSFUL message appears, click “**Continue**” to proceed.
- As shown on the next screen, return the AVR to normal operating mode by pressing the **Operate/Download** button so that it pops out to Operate mode. Next, press the **Reset** button and then click “**Continue**” to proceed.
- At the next screen, turn the AVR on by pressing the front-panel **Standby/On** button. Wait 30 seconds for the unit to reach normal operating status and then click “**Continue**” to proceed.

- The final data transfer is the new video software. Click “**Upgrade**” to proceed. During this process, you will see a series of messages in the loader window as the old software is erased and the new software is written to the AVR’s flash memory. When the message indicates that the update is complete, click “**Continue**” to proceed.
- Put the AVR in Standby mode by pressing the front-panel **Standby/On** button. Click “**Continue**” to proceed.
- The last step in the upgrade process is to do a system reset by pressing the **OK** button on the front panel. Press and hold the button for five to ten 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 in your owner’s manual to reenter the data copied to the worksheet files supplied with this upgrade package, or to 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 **1-2-3-0-OK** 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.

28-07-2009 01  
AFW V0.97.2.2

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](http://www.harmankardon.com), it will show the number of the latest version. 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!

## harman/kardon®

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