

HARMAN KARDON® AVR 635/AVR 435 FIRMWARE/SOFTWARE UPGRADE INSTRUCTIONS

Harman Kardon is pleased to offer an upgrade to the system software that powers the AVR 635's and AVR 435's internal operating system. Unlike many consumer audio products that are designed with "fixed" memory, these Harman Kardon products feature upgradeable flash memory and bidirectional communications through an industry-standard RS-232 port. To install the software, please follow the instructions on these pages. If you have any questions, consult our Web site at www.harmankardon.com.

This upgrade includes the benefits of all previous software updates, as well as an added correction to make certain that configuration settings remain in the system memory.

IMPORTANT NOTE: This software is specially designed for use with Harman Kardon's AVR 635 and AVR 435 receivers. Use with any other models or brands may cause damage to the product. **DO NOT USE THIS SOFTWARE WITH ANY PRODUCTS OTHER THAN THE HARMAN KARDON AVR 635 OR AVR 435.**

System requirements:

In order to install the software upgrade, you will need to purchase a standard male-to-female RS-232 cable with D-Sub 9 connectors on each end. The cable should be long enough to safely reach from your computer to the RS-232 port on the rear of your receiver, but we do not recommend cable lengths longer than 25 feet. This cable is available at most electronics and computer stores. It is important to purchase a "standard" serial cable; so-called "null modem" cables will not operate properly.

You will also need to have access to a computer that is close enough to be connected to the AVR being upgraded. This connection must be made to a physical RS-232 port on the computer; USB-to-RS-232 adapters may not operate properly.

The minimum system requirements for the computer are:

- Processor: Intel® Pentium® II processor or equivalent, or higher
- Operating system: Microsoft® Windows® 98SE, Windows ME, Windows 2000 or Windows XP
- Hard drive space: 5MB available
- System RAM: 128MB
- CD-ROM drive (for CD-ROM version only)
- Physical RS-232 port

IMPORTANT NOTE: After you have downloaded the upgrade files to your computer, an Internet connection is not necessary to perform the upgrades.

Installation instructions:

Upgrading your AVR 635 or AVR 435 is easy but, in order for the upgrade to work properly, it is important that you follow the instructions below precisely. **PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE PROCEEDING.**

- Upgrading your unit will erase all system memory. 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 configuration 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® Acrobat® Reader® and print copies as needed.
- Make sure that the Main Power switch (behind the front-panel door) on your AVR is turned off; connect the RS-232 connecting cable to the RS-232 port on the back of your AVR.
- Connect the RS-232 connecting cable to the RS-232 port on your computer.
- In order to activate the software upgrade and to make certain that you load the proper version of the software, please write down the unit's serial number while you are connecting the RS-232 cable to the port on the back of the AVR. You will need to enter this number during the upgrade process.
- 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 computer, use Windows Explorer, or any other file management program, to locate the folder where you have downloaded the upgrade files. Click on the zip file named "AVRxxxUpgrade.zip," noting that the "xxx" will be replaced by the model number of your receiver.

When you do this, the file will automatically unpack all of the files needed to upgrade your computer.

- 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 because there will be a small Harman Kardon logo near the file name, depending on the display mode for your file manager.
- When you click on the file, the receiver's operating console will appear on the screen. You will see a representation of the receiver's front-panel display, along with buttons that simulate the remote control. You may use this console at any time to operate the AVR from your computer.
 - If a **WAIT DATA** message flashes in the simulated front-panel display, please check the RS-232 cable to make sure that the plugs are securely connected at both ends.
- Feel free to experiment with the operating console by moving the cursor over any of the buttons and then clicking with your mouse to run the receiver just as you would from the remote. However, before proceeding with the upgrade, make sure the receiver is in Standby mode.
- Click on the Password icon above the display and a dialog box will open.
- Enter the serial number of your receiver in the spaces provided, being certain to enter any capital letters exactly as you see them on the serial number label. Do not enter the dash between the two parts of the serial number, but do divide the number to the left and right of the dash provided in the on-screen box. Press "Enter" when the serial number has been entered.
- If the number is correct, the CPU Upgrade and DSP Upgrade icons above the display will become active. Click on the CPU Upgrade icon.
- When the next screen appears, click on the Browse button and navigate to the folder location where the downloaded files were saved, or to the folder for the CD-ROM or DVD-ROM drive where the installation disc is. Click on the file name with a ".cpu" extension and whose first six characters match the first six characters of your AVR's serial number. For example, if your AVR 635 has the serial number TF0011-12345, click on "TF0011.cpu." Correctly matching the serial number to the file name is important, as it ensures that the upgrade file matches your specific AVR.
- When the correct file name has been entered, click on the Start button to begin the upgrade.
- The upgrade will begin automatically, with its status and progress displayed on the screen.



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IMPORTANT NOTE: Once the upgrade starts, it is important that you 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 may possibly damage your receiver.

Due to the individual nature of each computer's configuration for memory capacity, processor speed and other system options, you may receive an error message during the "Verifying" portion of the CPU upgrade. If this occurs, please follow these steps:

- Turn your receiver off using the Main Power switch on the front panel.
- Exit the CPU Upgrade screen by clicking on the Return to Console button.
- Press the Main Power switch to place your receiver in Standby mode.
- Press and hold the ► button behind the front-panel door, and release it when the unit turns on and the Version Number message appears in the front-panel display.
- If the version number shown on the lower line of the display is either "Version 4.15" or "Version 5.15," there is no problem and you have successfully upgraded the CPU.
- If the version number shown on the lower line of the display is other than "Version 4.15" or "Version 5.15," click on the Return to Console button and repeat the CPU upgrade process.

When the CPU upgrade is complete, you will see an on-screen message instructing you to reset the receiver to complete the upgrade. Observing the following steps, make certain to check that the proper software version has been loaded.

- Turn off the Main Power switch, located behind the front-panel door, by pressing it in and then releasing it so that it pops out.
- Wait ten seconds and then turn the Main Power switch back on by pressing it in so that it latches. The lighting around the Standby/On switch will turn amber to remind you that the unit is in Standby mode.
- Reset the receiver's processor by pressing and holding the Surround Mode and Tune Mode switches on the front panel, and releasing them when the unit turns on and the word "Reset" appears in the front-panel display.
- Check the version number for the software by pressing the Standby/On switch to put the unit in Standby mode. Press the ► button at the far right side of the row of buttons behind the front-panel door. Release it when the unit turns on, and check the front-panel display to make sure that either "Version 4.15" or "Version 5.15" is shown. After a few seconds, the unit will return to Standby mode.

You have now completed an upgrade of the operating system software in your AVR. Exit the Console program by clicking on the "X" in the upper right corner of the console window. After disconnecting the serial cable, you are almost ready to enjoy the benefits of improved performance and experience the latest surround sound technology.

Harman Kardon AVR 635/435 revised owner's manual:

Although this upgrade package does not change the operation of your AVR, some of the benefits of the prior software upgrades did change certain menus. If you are still using the owner's manual that came with your AVR, you may want to print a copy of the updated version.

To print the updated owner's manual for your receiver, use Windows Explorer or another file management program to locate the "AVRxxxOM.pdf" file in the directory where the upgrade files have been saved, noting that the "xxx" will be replaced by the model number of your receiver. Click on the file to open it with Adobe Acrobat Reader and print copies as needed. The updated owner's manual may also be downloaded from the support section of the Harman Kardon Web site.

Restoring settings and recalibrating your receiver:

The upgrade and reset process erases any of the system configuration data and tuner presets stored in your receiver, so it is important that you reenter that data. Follow the instructions shown in the Operations, Advanced Settings and Multiroom sections of the new owner's manual printed out as explained above, using the data copied to the worksheet files supplied with this upgrade package, or enter new settings.

Since the upgrade process erases your system's settings, it will also be necessary for you to rerun EzSet/EQ before resuming use of your AVR.

ENJOY! With the completion of the upgrade process, your Harman Kardon AVR is not only as good as new – it now has features that were not available when you first bought it. We wish you many years of happy listening!

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