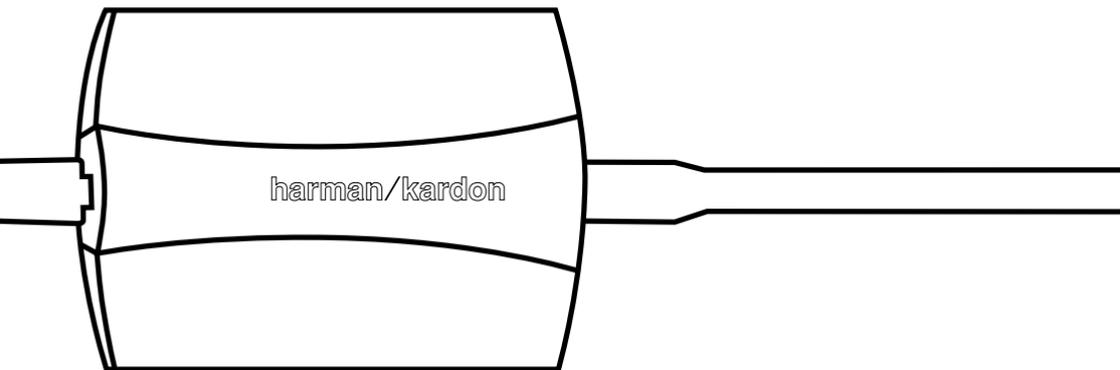


ez link™ DAL 150

INSTALLATION GUIDE

For Use With Version 1.02 Software and Microsoft® Windows Media® 9 Series



harman/kardon®

Power for the Digital Revolution.®

SYSTEM REQUIREMENTS

In order for the DAL 150 EzLink to function correctly, the following is required:

- PC-compatible computer with USB port
- Microsoft Windows® 98SE, Me, XP or 2000 operating system*
- Pentium® processor, 200MHz or higher
- At least 32MB of system memory
- At least 15MB of free hard-disk space
- CD-ROM or DVD-ROM drive
- A/V receiver or processor with a coaxial digital input and PCM- or MP3-decoding
- Windows Media Player 9 Series or earlier versions

* If you wish to use the DAL 150 with a computer that is not running one of the listed operating systems, you will need to upgrade your operating system to the latest version of Windows applicable to your computer.

INTRODUCTION

Congratulations! As the owner of a DAL 150 EzLink Computer-to-Home-Audio Link, you have an accessory that will enable you to listen to your library of MP3 files, with playback quality approaching that of CDs, by using your home audio system.

The DAL 150 is a unique device that accepts compressed-audio MP3 files from your compatible personal computer, and outputs audio selections in PCM format using a coaxial digital S/P-DIF connection that enables playback using any A/V receiver that has a coaxial digital input. When used with a Harman Kardon A/V receiver that features onboard MP3 decoding, you may select native MP3 data output so that high-quality decoding will take place within the A/V receiver. Please check the owner's manual to see whether your receiver has a built-in MP3 decoder.

Even if you are familiar with the procedure for adding USB-compatible hardware devices to your computer, we strongly suggest that you use this brief installation guide to quickly install and start enjoying your DAL 150 EzLink.

If you have any questions during the installation procedure, or if you require technical support at any time, please contact technical support by visiting our Web site at www.harmankardon.com. You may also write to:

Harman Kardon Technical Support Department
250 Crossways Park Drive
Woodbury, New York 11797
Attn: Department DAL 150 EzLink

SAFETY INFORMATION

Do Not Open the Cabinet

There are no user-serviceable components inside this product. Opening the cabinet may present a shock hazard, and any modification to the product will void your warranty.

Installation Location

To ensure proper operation and to avoid the potential for safety hazards, place the unit on a firm and level surface. Since it is normal for the DAL 150 to become slightly warm during operation, do not place it directly on a carpeted or other soft surface.

Avoid stringing the cables connected to the DAL 150 across open areas that may present a potential safety hazard for the user or other persons. Make certain to avoid the possibility of one of the cables being pulled inadvertently and causing either the DAL 150 or other equipment to fall.

Avoid installation in extremely hot or cold locations, or in an area that is exposed to direct sunlight or heating equipment. Avoid moist or humid locations.

Cleaning

When the unit gets dirty, wipe it with a clean, soft, dry cloth. If necessary, after disconnecting the unit's cables, wipe it with a soft cloth dampened with mild soapy water, then with a fresh cloth with clean water. Wipe dry immediately with a dry cloth. NEVER use benzene, aerosol cleaners, thinner, alcohol or any other volatile cleaning agent. Do not use abrasive cleaners, which may damage the finish of metal or other parts. Avoid spraying insecticide near the unit.

Moving the Unit

Before moving the unit, be certain to disconnect any cables that connect with other components.

Important Information for the User

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. The limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that harmful interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the computer to which the equipment is connected into an AC outlet on a circuit different from that to which the receiver is connected.
- Consult your dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept interference received, including interference that may cause undesired operation.

NOTE: Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003.

GENERAL INSTALLATION INSTRUCTIONS

The precise dialog boxes and messages that will appear on your computer screen at various points during the installation procedure will vary depending upon the version of the Windows operating system that has been installed on your computer. Since installing a USB device on your computer is a fairly automatic process, you may wish to proceed by following these general installation instructions.

Step One – Download the Windows Media Player

The DAL 150 works in conjunction with any version of the Windows Media Player through Series 9. To take advantage of the features of the latest version of this innovative software, download the version that is appropriate for your computer's operating system from the Microsoft Web site at www.microsoft.com/windows/windowsmedia/9series/player.aspx. Follow the instructions provided, and reboot your computer, if needed, after completing the installation.

Step Two – Download the DAL 150 software

After the Windows Media Player had been installed, download the new Version 1.02 edition of the DAL 150 software from the Harman Kardon Web site at www.harmankardon.com/dalsoftware. Two downloads are available there, and it is important to select the "Complete Software" link, not the "Software Upgrade."

When prompted by your computer to "OPEN" or "SAVE" (in some cases your option may be "RUN" instead of "SAVE") the download, click on OPEN. This will begin the process of downloading the files needed to install the software. After you click on OPEN, a dialog box will open to show that the file is being downloaded to your computer. The time required for the download will vary with the speed of your network connection.

When the download is complete, the first dialog box will close, and the InstallShield Wizard will open. This will extract the files and save them on your hard drive. We recommend that you click "NEXT" to accept the default location for the files, but you may choose another drive and/or location if necessary by clicking on the "CHANGE" button, and then clicking on NEXT when the file location is selected.

A message window will show you the progress of the file extraction, and a final window will open when the process is complete. Click "FINISH" to close the InstallShield.

You may now close your browser and continue to the next step.

Step Three – Connect USB Cable to DAL 150 and PC

Plug the USB cable into the DAL 150 and into an available USB port on either your computer or an optional powered, external USB hub.

Step Four – Install the Hardware Drivers

At this point, your computer should recognize that a USB device has been attached to it, and one or more screens will appear to confirm that the “Found New Hardware Wizard” has been launched. You may need to click the “Next” button through several dialog boxes in order to reach a box that asks you to install the software driver.

After the “Found New Hardware” screens open and close, a dialog box will open with the “Found New Hardware Wizard.” At the bottom of the box, click the choice that reads “Install from a list or specific location” or “Search for a suitable driver for my device,” depending on the version of Windows installed on your computer. Click the “Next” button to continue.

If the next screen asks for a place on your computer where the driver files are located, select “Specify a location,” and click “Next.”

At the next screen, you will be asked to enter the location for the installation files. Using the “Browse” button, navigate to the C:/HK/DAL150 folder location and click “Next.” When the computer informs you that it has found the driver file “mgmp3.inf,” click “Next” to continue.

If you are using the Windows XP operating system, you may see a screen warning you that the DAL 150 software has not been verified as compatible. Other versions of Windows may report that the software may not work correctly. You may confidently proceed. Although there was no Digital Signature for the 8051 firmware used by the DAL 150 as of the printing of this installation guide, the software has been thoroughly tested for full compatibility with the Windows 98SE, Me, 2000 and XP operating systems and is safe to install.

Step Five – PC Installs Software

At the same point during the installation, the computer will indicate that the software program being loaded is called "Loader 8051 firmware." The computer may also indicate its location as "C:\HK\MGMP3.INF" (or some other drive letter associated with the hard drive where the software files are installed) in some versions of the Windows operating system. If your computer is attempting to install a different software driver, cancel the installation and go back to the screen that will allow you to specify the location of the correct software driver.

Allow the computer a few minutes to install the software driver without interruption. A dialog box, similar to the one shown in Figure 1, should appear. Click the "Finish" button to continue the installation.



Figure 1 – Software Driver Installation Complete

Step Six – Complete and Verify Installation

A few more “Found New Hardware” screens may appear, and you will know that the installation is complete when a small “hk” logo appears in the Windows systray or taskbar in the lower right corner of your screen (see Figure 2). If you do not see this logo, try momentarily unplugging the USB cable from your computer’s USB port, or from the external hub, and then plugging in the USB cable again.



Figure 2 – “hk” logo in systray

Step Seven – Connect Coaxial Digital Cable to DAL 150 and Home Audio System

Plug one end of the supplied coaxial digital cable into the DAL 150, and plug the other end into any available coaxial digital input used by your home audio system. If the digital cable supplied is not long enough to reach your home audio system, you may replace it with a longer cable of up to 100 feet designed for video or digital audio use, which may be purchased from your local electronics dealer. If you require a connection longer than 100 feet, there is a possibility of some loss in audio quality due to degradation of the signal as it travels a longer distance. Do not use RCA-type audio interconnect cables that are not designated for video or digital use. Try to avoid using a longer USB cable, in order to avoid degradation of the data.

Consult the owner’s guide for your home audio system for information on configuring your audio system to select the digital input you have selected for playback. Make sure that your audio system has been powered on, and that you have selected the appropriate source input for your digital audio input.

OPERATION

Before you play your MP3 selections, you must configure the output of the DAL 150 to match the decoding capabilities of your home audio system. To do this, double-click on the “hk” icon in your systray to bring up the dialog box shown in Figure 3.

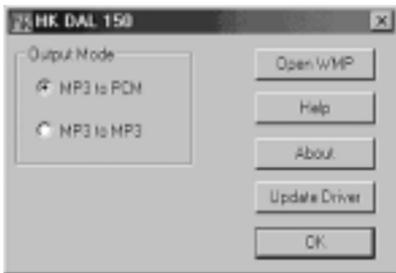


Figure 3 – DAL 150 Dialog Box

Choose the correct Output Mode for your system: MP3 to PCM for most systems, or MP3 to MP3 for those systems that feature onboard MP3 decoding, such as many current Harman Kardon A/V receivers. Then, click on the “OK” button to enter your selection.

If your home audio system is capable of internal MP3 decoding, either choice has advantages. By choosing the MP3-to-PCM mode, your audio system will perceive the data stream to be no different than the data it might receive from your CD player, and you will be able to select available DSP or surround sound processing modes to increase your audio enjoyment. However, by choosing the MP3-to-MP3 mode, although you will only be able to play the selections in traditional stereo mode, you will free up your computer’s processing unit from the task of performing the MP3 decoding.

Launch the Windows Media Player from either your desktop or taskbar shortcut, or by double-clicking on the “hk” logo in your systray and clicking on the “Open WMP” button. Select the “Media Library” button.

Click on the “+” button to add MP3 files stored on your computer to the Media Library.

Click on the “Media Guide” button at the right side of the screen to download files directly from the Internet. As you surf the Internet to visit sites that contain MP3 streams or downloads, they will play through your home audio system via the DAL 150, as long as the Windows Media Player is in use.

You may create a playlist using the Media Library by clicking on the “New Playlist” and “Add to Playlist” buttons as shown in the Media Player, or you may simply double-click on any selection stored in the Media Library to play it.

The Windows Media Player will search for a USB device for its audio output. You should mute or disconnect any external speakers connected to another USB output on your computer or hub. When the DAL 150 is in use, the volume control on your computer and the software volume control in Windows Media Player will not operate. Volume can be adjusted using your A/V receiver or processor.

If the Windows Media Player does not detect the presence of a USB device, it will display an error box. You may, if you have disconnected your DAL 150 from your computer, click the “OK” button and allow the Player to continue with playback using your computer’s internal speakers.

An alternative method of accessing the DAL 150 software is to right-click on the “hk” logo in the systray to bring up the drop-down menu.

UNINSTALLATION

You may at some time find it necessary to uninstall the software for the DAL 150 from your computer. Be sure to exit all other Windows applications, including Windows Media Player, before uninstalling the DAL 150. If the DAL 150 is connected to your computer, then right-click on the “hk” logo in your systray, and then click on “Uninstall.” A warning dialog box will appear asking you to confirm that you wish to remove the software decoder from your computer. Click the “OK” button to continue.

If you need to uninstall the device without having the DAL 150 connected to the computer, you will need to start the uninstallation process by running the program C:\HK\DAL 150\RemoveMp3.exe.

The computer will uninstall the software, and then a dialog box will appear when the uninstallation has finished. You may unplug the DAL 150 from the USB port or hub, and reboot your computer. This completes the uninstallation.

TROUBLESHOOTING GUIDE

Your DAL 150 EzLink Computer-to-Home-Audio Link has been designed to operate automatically and with minimal user involvement once installation has been completed. If you do experience any difficulties, please consult this troubleshooting guide for assistance.

Symptom	Possible Cause	Solution
DAL 150 was disconnected from PC without uninstall procedure, and PC requires the software	PC needs to reload driver software into system memory if a different USB port was used	Anytime the DAL 150 is plugged into a different USB port from the initial installation, such as the second port on a computer with two ports, or switching from the docking station to the port directly in the laptop or vice versa, the Windows operating system will need to reload the driver in order to associate it with the new port. When the "Found New Hardware" dialog box asks for the location of the driver, browse to c:\HK\DAL 150.
Unable to uninstall DAL 150	DAL 150 not connected to computer	In order to initiate the uninstallation procedure, you must run the program C:\HK\DAL 150\RemoveMp3.exe.
	Icon still appears in systray – uninstallation procedure not complete	For Windows 2000 or XP systems, go to the Device Manager and make sure that both "HK DAL 150" and "Loader 8051 Firmware" have been uninstalled. Try repeating the uninstallation procedure.

Symptom	Possible Cause	Solution
No icon in systray	USB port needs to be reset	Unplug DAL 150 from USB port or hub, and then plug it in again.
No sound from home audio system when an MP3 selection is playing	Output mode set incorrectly	Double-click on the “hk” logo in the systray, and make sure the correct output mode has been selected. Make sure to click on the “OK” button to enter the selection.
	Home audio system not able to process selected output mode	<p>Since analog audio input jacks look similar to coaxial digital audio input jacks, make sure you have plugged the coaxial digital audio cable into the correct input jack, and that your home audio system includes a coaxial digital audio (S/P-DIF) input.</p> <p>If your home audio system features a coaxial digital audio input jack, then it is most likely capable of processing data in the PCM format. Double-click on the “hk” logo in the systray, and make sure that the MP3 to PCM mode has been selected. Enter the selection by clicking the “OK” button.</p> <p>If your home audio system features onboard MP3 decoding, and you have selected the MP3 to MP3 output mode for the DAL 150, you may wish to check the bit rate of your MP3 selection to ensure that it is not higher than the bit rate capable of being decoded by your home audio system.</p>

Symptom	Possible Cause	Solution
No sound from home audio system when an MP3 selection is playing	File format incompatible with DAL 150	The DAL 150 is only capable of playing back files encoded in the MP3 compressed-audio format. Check that the file extension is ".MP3." Also, files downloaded from private sources on the Internet may not be in the correct format, despite having a file name ending in .MP3.
After uninstalling the DAL 150, Windows Media Player does not play files	Windows software volume control turned down	Sometimes the uninstall procedure causes the PC's software volume control to be turned all the way down to protect the equipment. Double-click on the speaker icon in the systray to adjust the control.
Noise when streaming MP3 files from the Internet	Internet browser is distorting files	Click on the "Mute" icon at the bottom of the Windows Media Player screen.

SPECIFICATIONS

Maximum MP3 Compression Bit Rate: 320kb/sec**

Power Supply: Via USB connection

Dimensions (H x W x D): 7/8" x 3-3/4" x 2-5/8" (22mm x 95mm x 67mm)

Weight: 3 oz. (86g)

** Although the DAL 150 is compatible with MP3 files encoded at bit rates up to 320kbps, due to the wide variety of MP3 encoders and hardware environments, it is possible that some files are incompatible with the DAL 150, even though they were encoded at a lower bit rate.

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