

MacBook laptop configurations & OS X optimizations

A fast processor and a good amount of memory are important, but they do not necessarily guarantee that a computer will perform well when using audio/DJ applications, which can be very demanding.

This document will cover many changes and modifications that can be applied to your computer to improve performances, and hopefully provide a more satisfying experience when using your Hercules DJ Console.

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USB ports

Due to internal routing of the USB ports it is recommended to use specific ports in order to prevent problems such as audio interrupts and/or dropped samples.

This applies to all MacBook models with Intel Core Duo and Core 2 Duo Processors.

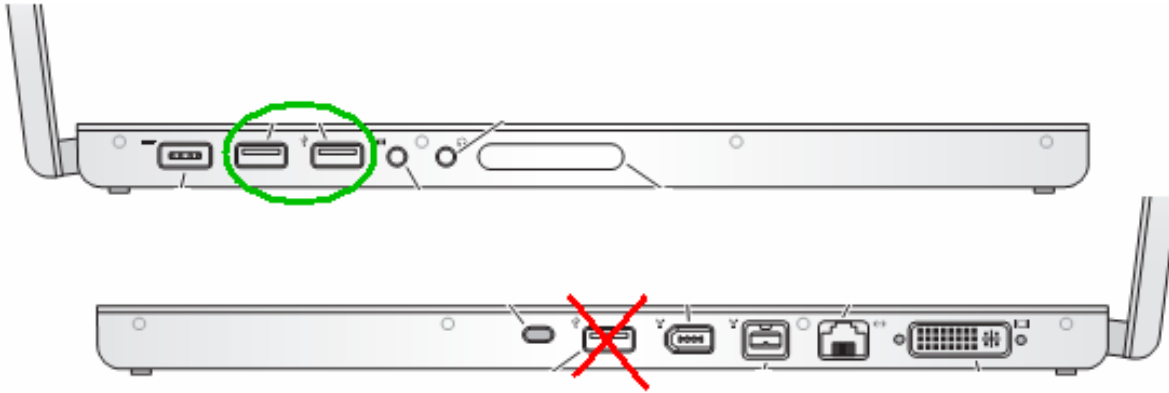
a) MacBook 13”

USB audio devices should ONLY be used on the front USB port (the port farthest away from the screen).



b) MacBook Pro (15" & 17")

USB audio devices should **ONLY** be used on the left-side USB port(s).



c) USB hubs

Only quality powered USB hub should be used. However, it is recommended **NOT** to use a USB hub during the driver installation and/or Firmware updates. Once the drivers are installed and you are certain that your Hercules DJ Console works as expected when connected directly to the computer's USB port, then, test using a USB hub.

As well, when connecting multiple devices to the same hub(such as external hard drives), keep in mind that they all have to share the USB port's bandwidth. This means that it is more likely to run into problems when the bandwidth limit of the USB port is reached.

[Power Management](#)

a) Battery

By design, laptops are configured to use as little power as possible in order to be operated on battery. This, however, is not desirable when it comes to audio applications.

It is then preferable to use your computer's power supply and to configure your laptop to run as a normal desktop computer:

b) Processor Performance

Music, video-editing, and other applications require a lot of processor power. If your computer doesn't perform well when you're using these applications, check your **Energy Saver** preferences to insure it is not set to reduce processor performance to save energy.



To change the processor performance setting:

- Choose **Apple menu > System Preferences > Energy Saver**.
- Click Options.
- Choose **Highest** from the **Processor Performance** pop-up menu.

If you don't see the Processor Performance pop-up menu, your computer doesn't support this feature

c) Disabling Sleep mode

The last thing you want during a mix is for your computer going to sleep mode. You can also disable this function from the **Energy Saver** menu:

- Click **Sleep**. Click **Show Details** to see the sleep settings, if necessary.
- Drag the top slider to **Never**.
- To prevent the display from sleeping, deselect the checkbox labeled "**Put the display to sleep when the computer is inactive for.**"
- Also be sure to uncheck **Put the hard disk(s) to sleep when possible**.

[Hard drive and partition](#)

It is usually recommended to have multiple hard drives when working with audio and video, one affected to the operating system and software, while other(s) used for the files being played and storage/backup.

If this is not possible, creating multiple partitions on the same hard drive is the next suitable solutions, which can provide similar results. Hard drives can be partitioned easily using Apple **Disk Utility (Application > Utilities)**. Consult the help file for more details.

When using a USB external drives, please refer to the [USB recommendations](#) previously mentioned.

[Internet, network and security](#)

Ideally, you computer should be dedicated for DJ performance, and as such, wouldn't need to connect to the Internet. Under these circumstances, antivirus, firewall and similar protection software should not be installed, as they can create problems during audio playback by constantly scanning the hard drives.



However, if you also use your computer for Internet and obviously require protection software to be present, be sure to follow the following steps before a performance:

- Disable your all protections programs (Antivirus, Firewall, etc)
- Disable all communications software (iChat, Skype, etc)
- Close all download applications (Torrents, etc)

It is also important to turn off **Air Port**, **Bluetooth** or any network connections to prevent possible interferences:

- Open **System Preferences > Network**.
- From the **Show** selection, choose **Network Port Configuration**.
- Uncheck **Airport** from the list.
- Click **Apply Now**.

- **System Preferences > Bluetooth**
- Click the **Settings** tab.
- Click **Turn Bluetooth Off**.

You should also turn Off **Sharing**:

- Open **System Preferences > Sharing**.
- Click on the **Services** tab.
- Uncheck **Personal File Sharing** and **Personal Web Sharing**.

[OS X performance improvements](#)

Following are simple modifications that can be made to OS X to improve the performance of the operations system, and consequently, how applications will perform.

a) Shut Down all other Applications

Only open the applications necessary. Running any other programs at the same time as you audio application will use precious processor and memory resources.

b) Log off Additional Users

If you have set up multiple user accounts on your computer, make sure your user account is the only one logged in by logging off any additional users.



c) Dashboard

With OS X 10.4, Apple introduced **Dashboard**, an application that gives access to various utilities (called Widgets). Unfortunately, a lot of memory is required to run this application. Dashboard can however be disabled easily using **Terminal (Application > Utilities)**

- Open Terminal, and then type this command, followed by the Return key:

defaults write com.apple.dashboard mcx-disabled -boolean YES

- For the changes take effect, you need to restart the Dock. The easiest way to do that is to type this command into the Terminal (and press Return when done):

killall Dock

If you need or want to restart Dashboard, simply enter this command in **Terminal**

defaults write com.apple.dashboard mcx-disabled -boolean NO

d) Graphic enhancements

Some of MAC OS visual options may interfere with the operation of your audio software:

1- Make the Desktop Static

- Open **System Preferences > Desktop & Screen Saver**.
- Choose the **Desktop** tab.
- Choose an image for your background,
- Uncheck **Change Picture**.

2- Turn off the Screen Saver

- Still in **Desktop & Screen Saver**, choose the **Screen Saver** tab.
- Set the slider for Start Screen Saver to **Never**.

3- Lock the Dock

- In **System Preferences > open Dock**.
- From the menu **Minimizing Using**, select **Scale Effect**.
- Uncheck **Animate opening applications and Automatically hide and show the Dock**.

