GUIDE How to Remap Brightness Hotkeys on Laptops

EliteMacx86

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An EliteMacx86 Exclusive Guide – This guide covers mapping of Brightness Hotkeys on Laptops

Overview

After enabling the backlight which results in adding slider in SysPrefs->Displays, the brightness hotkeys will not work. This guide will enable the brightness hotkeys on your laptop. By using the hotkyes, you can control the amount of brightness.

Before starting with this guide, make sure you've implemented the Backlight Control on your Laptop

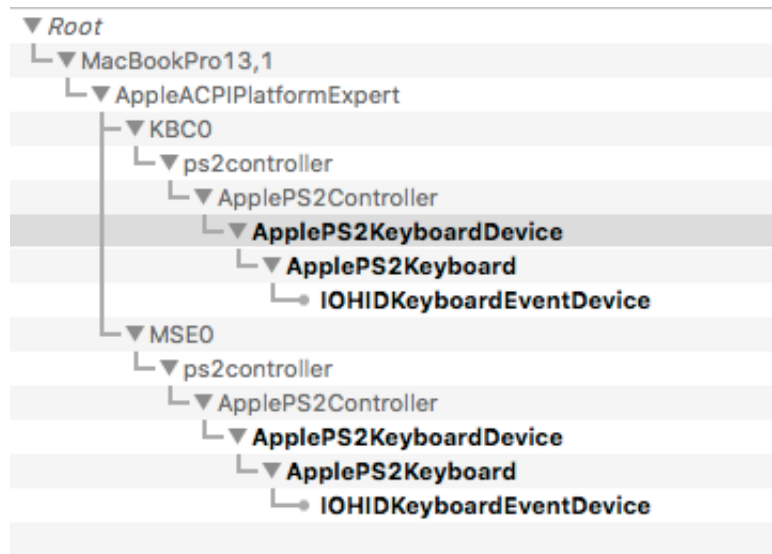Once you've fixed your backlight control, you can remap your brightness hotkeys.
All the keys on the keyboard have a unique code. The brightness keys can be controlled as Fn+Fx. Some laptops uses Arrow Keys too.

Finding Keyboard Driver

First you need to find what Keyboard driver is there. To find this, you can use IOReg.

- Open IOReg
- Search for Keyboard

In the left pane, you'll find something similar to this

In this case, ApplePS2Keyboard attaches to ApplePS2KeyboardDevice, which attaches to ps2controller, all of which attach to KBC0, this is the device name we're looking for.

Note:

- ***All laptops does not use KBC0, some may use PS2K.***

You'll need to know what exact codes or the commands is called when the key is pressed. Usually, media keys generate EC queries. A quick way to know is to use ACPIDebug.kext to instrument all EC query methods, then press the keys while monitoring system.log. When you press the keys, the name of the method will be output, which will allow you to patch that method.

Notes :

- *Make sure you've patched your DSDT using the DSDT and SSDT*

patching guide which has been covered here:
[https://www.elitemacx86.com/threads/guide-how-to-patch-laptop-](https://www.elitemacx86.com/threads/guide-how-to-patch-laptop-dsdt-and-ssdts.178/)
[dsdt-and-ssdts.178/](https://www.elitemacx86.com/threads/guide-how-to-patch-laptop-dsdt-and-ssdts.178/)

- *The OS Check Fix patch is necessary to call the EC query methods.*

Determining the EC query methods

ACPIDebug.kext: https://github.com/RehabMan/OS-X-ACPI-Debug
Download and install the ACPIDebug.kext to S/L/E
Open MaciASL and add the ACPIDebug in Sources
Open your DSDT and apply "Add DSDT Debug Methods"
Also apply "Instrument EC Queries"
Click on Close
Save the DSDT file to any other location.
Copy the patched DSDT to your EFI/ACPI/Patched
Restart
Press your brightness keys and monitor the system.log.

Patching the DSDT for Hotkeys

Once you get the methods which results to the brightness keys, you can patch your DSDT.

Assuming that _Q11 is brightness down, and _Q12 is up, as per the logs.

Open your DSDT and apply the patch

Code:

```
#Edit methods _Q11 and _Q12 to interface with KBC0 (or PS2K in some systems),
into method label _Q11 replace_content
begin
```

```
// Brightness Down\n
Notify (KBC0, 0x20)\n
end;

into method label _Q12 replace_content
begin
// Brightness Up\n
Notify (KBC0, 0x10)\n
end;
```

Notes :

- _Change the value of Keyboard according the IOReg found in your laptop. For e.g KBC0._
- _Change the value of corresponding keys according to the system.log. For e.g _Q11 for brightness down and _Q12 for down._

Restart your System

After performing all the above steps, restart your system for the applied changes to take effect.
Now you should be able to get your Intel UHD Graphics 1536 MB will full QE/CI. And your Dock would be also transparent.

Problem Reporting

Details:

1. macOS version
2. Copy of IOReg
3. Kextcache output

Screen shots:

- DPCIManager/Status
- About This Mac
- System Information/Graphics/Displays
- System Preferences>Displays

Files:

- For Clover, compress EFI/Clover, exclude the themes folder.
- For OpenCore, compress EFI/OC.
- ACPI dump

Notes:

- ***Do not include complete EFI folder.***
- ***Put all files in a folder with your name, compress files as Zip and attach files using site attachments only.***
- ***Do not use any external links.***

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