

How to Install Windows 7 on Skylake based systems - Overcoming USB issues such as Keyboard not working or Installation Media not found

Issues

Scenario

- You have an Intel Skylake based system.
- You are trying to install Windows 7 from scratch, or deploy a Windows 7 image.

Possible Problems

- You find that Windows 7 or Windows 7 Setup won't recognise USB devices. This might be a USB DVD drive or USB pen drive. On some systems, even the USB keyboard or mouse don't work.
- Also, when trying to install Windows 7 from a USB pen drive, it says that a driver is required to continue, or it reports that the installation media cannot be found.
- These issues can give the appearance of the system as having frozen or crashed, for example if the USB keyboard and mouse are not working.

If you have not added the correct USB drivers for Windows 7 and Skylake support, it is more likely that you are affected by one or more of these issues.

Note: To prove if you are affected by this issue, try running Windows 10 Setup and confirm that the keyboard and mouse work as normal.

Cause

Intel add new features and enhancements to each new chipset or platform that they produce. However, sometimes, legacy or older features are removed. Starting with the Intel Skylake platform, which includes processors such as the Core i3-6xxx or Core i5-6xxx, EHCI Support has been removed. As Windows 7 only supports the EHCI standard out of the box, no USB functionality will be available until an additional driver has been added.

Resolutions

Note: For all resolutions, you will need to disable Secure Boot and UEFI boot in the BIOS. Enable Legacy Boot in the BIOS as this is required for Windows 7.

If Installing Windows 7 from Scratch:

Resolution 1 - Using the USB 3 Driver on a CD or DVD disk

- Transfer the Windows 7 ISO image to a USB Pen drive (use [ISO2USB](#) or [Rufus](#) etc.)
- Download the Windows 7 USB driver, extract it and burn it to a standard CD (**not** UDF or "live file system"):
 - Get the driver from the [Stone Driver Finder](#) for your system
 - Or use the driver from the motherboard DVD which came with your system (for example, the Asus DVD)
 - Or use the Intel Skylake USB3 driver for Windows 7, [here](#).
- Put the CD / DVD into the DVD drive.
- Boot the system from the USB pen drive (use F8 on most desktop systems to get the Boot during POST, F10 on NUCs)
- Windows should automatically load the driver from the CD and proceed with the installation as normal, with USB support included.

Resolution 2 - Use the Intel USB 3.0 Media Creation Tool

The Intel USB 3.0 media creation tool is designed to create Windows 7 installation media that includes the USB 3.0 driver. This tool is primarily designed for Intel Skylake NUC products but should be suitable for other systems, such as desktops or laptops, using similar Intel chipsets. For more information, go [here](#).

Note: Please download the correct version of the tool for the PC that you are using to create the media. There is one version of the tool for Windows 7 and another for Windows 8.1/10.

If deploying Windows 7 from an Image or Imaging System:

Resolution 3 - Add the Driver to your Windows 7 Media Manually

- Add the driver to your deployment system driver packages, or operating system image file - download the Windows 7 USB driver from the [Stone Driver Finder](#) for your system, or use the Intel Skylake USB3 driver for package Windows 7, [here](#).
- Slip-stream the driver into your boot media, such as your Boot.WIM file. Exact instructions will vary depending on your imaging system, but for an example see these instructions for [Server 2008 R2 WDS](#)

If deploying Windows 7 with CC4:

Resolution 4 - Add Drivers to CC4

- Add the [Windows 7 USB driver](#) into one of your Driver Package Groups.
- Then add drivers to the Boot image from the Driver Package Group.
- You may benefit from an updated build disk that comes with CC4 Update 187 and Update 188 (for x86 and x64)

- There is also an update to the CC4 system to allow the USB Driver to be imported and used successfully, available with CC4 Update 194.
- Additionally, a [CC4 USB Package](#) containing 4.0.6.60 Skylake USB 3 driver is available. This can be pushed out to clients that have built but do not have fully working USB drivers.
- Where available, in the BIOS, change the USB Support setting from Partial to Full Initialisation, or Disable Fast Boot.

Note: For third party advice and more work-arounds regarding this issue, see [here](#) for the Asus page, or [attached](#) or [here](#) for the Intel guide. The Intel instructions should work for most products including notebooks, desktops and NUCs.

Work Around

If your system supports it, use a PS/2 keyboard and mouse to continue the installation or deployment until you can install the USB driver. If you are working with a large number of systems, we recommend one of the resolutions above instead.

More Information

The following work-arounds do NOT solve this issue:

- Plugging your USB keyboard or mouse into a USB 2.0 port: All USB ports on Skylake systems are affected, both USB2.0 and USB 3.0.
- Using an add-in USB card: EHCI Support is also removed from the BIOS and the add-in card will not solve the problem.
- Booting a Windows 7 Installer from a pen drive and attaching a PS/2 keyboard or mouse - you still need to add the USB3 driver in so that the Windows 7 Installation pen drive is recognised by the Setup Program.

Applies to:

- Stone Desktops, NUCs and Notebooks based on the Intel Skylake platform

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