

BIOS Update Readme

BIOS Update Instructions for Intel® NUC

This readme file includes BIOS update instructions for advanced users. If you need more complete step-by-step instructions on how to use each of these BIOS update methods, refer to [NUC BIOS Update Instructions](#).

The following methods are available to update an Intel® Compute NUC BIOS to the latest version.

- F7 BIOS Flash Update
- Power Button Menu BIOS Update
- iFlash BIOS Update
- UEFI Update
- BIOS Recovery Update

Important Notes:

- **Once the update process has started, DO NOT POWER DOWN YOUR SYSTEM before the update is complete. The update process will take up to 3 minutes.**
- Downgrading the BIOS to an earlier version isn't recommended and might not be supported. An earlier BIOS version might not offer support for the latest processors, bug fixes, critical security updates, or support the latest board revisions currently being manufactured. **If you're trying to downgrade to a previous BIOS version and its Intel® ME Firmware version is older than that currently on the motherboard, then the downgrade is NOT supported.**
- There may be a situation where the BIOS doesn't see your USB flash drive during an update or recovery. If this happens, try to reformat the USB flash drive, but de-select **Quick Format**. Then try the process again. You can find out more information in the article: [Troubleshooting BIOS Issues on Intel® NUC](#).
- If a BIOS update process is interrupted, your computer may not function properly. We recommend the process be done in an environment with a steady power supply (preferably with UPS).
- Before you start, record all BIOS settings that have been changed from default, so they can be restored after completing the BIOS update.

F7 BIOS Update Instructions

The F7 BIOS update option allows you to update the system BIOS during the boot process and before the operating system loads.

1. Download the **Recovery BIOS update** file (.BIO) and transfer it to a USB flash drive.
 2. Plug the USB flash drive into a USB port of the target Intel NUC.
 3. Turn on (or restart) the Intel NUC.
 4. During boot, when the F7 prompt is displayed, press F7 to enter the BIOS Flash Update screen.
 5. Select the USB device and press Enter.
 6. Select the .BIO file and press Enter.
 7. Confirm you want to update the BIOS by pressing Enter.
 8. Wait 2-5 minutes for the update to complete.
 9. Remove the USB flash drive.
 10. Restart the computer.
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Power Button Menu BIOS Update Instructions

The Power Button Menu Update allows you to update the system BIOS during the boot process and before the operating system loads.

1. Download the **Recovery BIOS update** file (.BIO) and transfer it to a USB flash drive.
2. Plug the USB device into a USB port of the Intel NUC when it's turned off (not in Hibernate or Sleep mode).
3. Press and hold down the power button for three seconds, then release it before the 4 -second shutdown override.
4. The Power Button Menu displays. Press F7 to start a BIOS update.
5. Wait 2-5 minutes for the update to complete.
6. The computer either turns off when the recovery process is completed, or it prompts you to turn it off.
7. Remove the USB flash drive.
8. Restart the computer.

iFlash BIOS Update Instructions

1. Download and save the BI.ZIP file to a temporary folder.
2. Unzip the downloaded file.
3. Copy the .BIO file and IFLASH2.EXE to a bootable USB flash drive.
4. Boot the Intel NUC to DOS.
5. At the appropriate directory prompt for the USB drive, type:

IFLASH2 /pf XXX.BIO (where XXX.BIO is the filename of the .BIO file) to launch the iFlash BIOS update process.

UEFI update instructions

1. Download the UEFI Flash BIOS Update file.
2. Double-click the *.ZIP to extract its files.
3. Copy UefiFlash.efi and the .BIO file to the bootable USB flash drive.
4. Connect the USB drive to a port on the Intel NUC.
5. Configure the BIOS of the target computer to boot to the EFI Shell:
 - a. Press **F2** during start to enter BIOS setup.
 - b. Go to *Advanced > Boot > Secure Boot*.
 - c. Disable **Secure Boot**, if enabled.
 - d. Go to *Advanced > Boot > Boot Configuration*.
 - e. In the Boot Devices pane, enable **Internal UEFI Shell**.
 - f. Press **F10** to save changes and exit BIOS Setup.
6. Press **F10** during boot to open the Boot Menu.
7. Select: UEFI: **Built-in EFI Shell**.
8. Change the current directory to the USB flash drive by entering the command: **fsX:** where X is the drive number of the USB flash drive from the device mapping list. Example: if your USB drive is fs0, then type **fs0:** and press enter.
9. At the command prompt, type: **UefiFlash.efi XXX.BIO** and press Enter. Where XXX.BIO is the filename of the .BIO file.
10. Press **Y** to begin the update.
11. Wait for the BIOS update to complete.
12. The computer will restart when finished.

After the BIOS update is complete, to turn off the **Internal UEFI Shell** and turn on **Secure Boot** follow these instructions:

1. Press **F2** during start to enter BIOS setup.
 2. Go to *Advanced > Boot > Secure Boot*.
 3. Enable **Secure Boot**, if enabled.
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4. Go to *Advanced > Boot > Boot Configuration*.
5. In the Boot Devices pane, disable **Internal UEFI Shell**.
6. Press **F10** to save changes and exit BIOS Setup.

BIOS Recovery Update Instructions

In the unlikely event that a BIOS update is interrupted, it's possible the BIOS might be left in an unusable state. Performing a BIOS Recovery can resolve this problem.

BIOS Recovery using the Power Button Menu

1. Download the **Recovery BIOS update** file (.BIO) and transfer it to a USB flash drive.
2. Turn off the Intel NUC (not sleep or hibernate).
3. While the Intel NUC is powered off, plug the USB flash drive into a USB port.
4. Press and hold down the power button for three seconds, then release the button before the 4 second shutdown override.
5. You will see the Power Button Menu. Select **F4** to start the recovery process.
6. Wait 2-5 minutes for the recovery process to complete.
7. The Intel NUC will either turn off automatically when the recovery process is complete, or it will prompt you to turn it off.
8. Remove the USB flash drive.
9. Restart the Intel NUC.

BIOS Recovery using the Security Jumper

1. Download the **Recovery BIOS update** file (.BIO) and transfer it to a USB flash drive.
2. Turn off the Intel NUC and unplug the AC power adapter.
3. Open the chassis and remove the BIOS security jumper. See [Technical Product Specifications for Intel® NUC Products](#) for details about the location of the jumper.
4. While the Intel NUC is powered off, plug the USB flash drive into a USB port.
5. Turn on the Intel NUC. The recovery process will start automatically.
6. Wait 2 – 5 minutes for the recovery process to complete.
7. The Intel NUC will either turn off automatically when the recovery process is complete, or it will prompt you to turn it off.
8. Remove the USB device.
9. Unplug the AC power and replace the BIOS security jumper.
10. Close the chassis and reattach the AC power.
11. Restart the Intel NUC.

All update/recovery methods are also listed on the [BIOS Update Instructions for Intel® NUC article](#).

Creating a Bootable USB Flash Drive

Refer to any of the following websites for tips on creating bootable USB devices. Intel is unable to assist with the creation of bootable devices.

- [Rufus](#)
- [How to Boot from a USB Flash Drive](#)
- [Boot from USB Flash Drive](#)

You can also search for additional resources on the web for creating bootable USB devices. Search on “How to create bootable USB drives”.
