BIOS Update Instructions for Intel® NUC Compute Element

Notes:

- **The latest BIOS update files for Intel® NUC Compute Element products are available on [Download Center](#).**
- Downgrading the BIOS to an earlier version is not recommended and may not be supported. An earlier BIOS version may not contain the support for the latest processors, bug fixes, critical security updates, or support the latest board revisions currently being manufactured.
- 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 updating the BIOS, manually record all BIOS settings that have been changed (from default) so they can be restored after completing the BIOS update.
- All images in this example are for illustration purposes only. You need to select the correct BIOS files for your Intel® NUC.

Choose an update method

Express BIOS update	Starts the BIOS update from within Windows*.
F7 update	Starts the BIOS update by pressing the F7 key during the boot process (before the operating system loads).
Power button menu update	Starts the BIOS update from the Power Button Menu (by pressing the Power Button for three seconds).
UEFI Shell update	Starts the BIOS update from the EFI Shell.
BIOS Recovery	In the unlikely event that a BIOS update is interrupted, it's possible the BIOS may be left in an unusable state. Try the BIOS Recovery method to fix the issue.

After any BIOS update, Intel recommends the following steps:

1. Press **F2** during boot to enter BIOS Setup.
2. Press **F9** to set BIOS default values.
3. Customize any BIOS settings, if desired (optional).
4. Press **F10** to save and exit BIOS Setup.
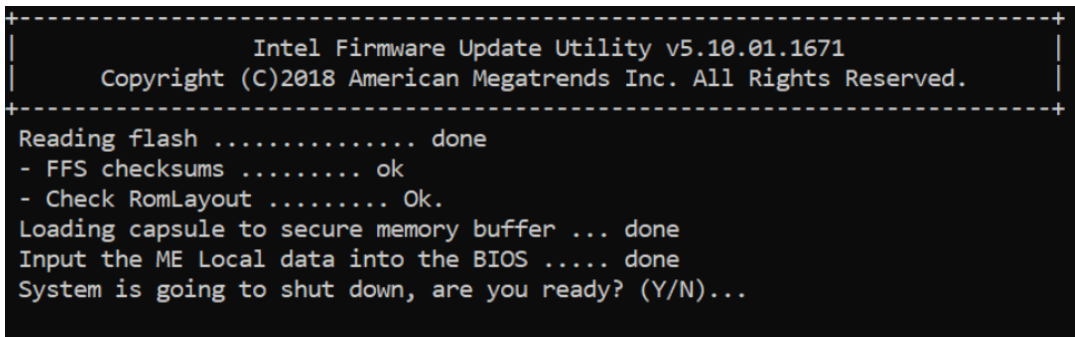
Express BIOS Update Instructions

1. Download and save the Express BIOS update file (.EBU.exe) to a temporary directory on the target computer. Example:
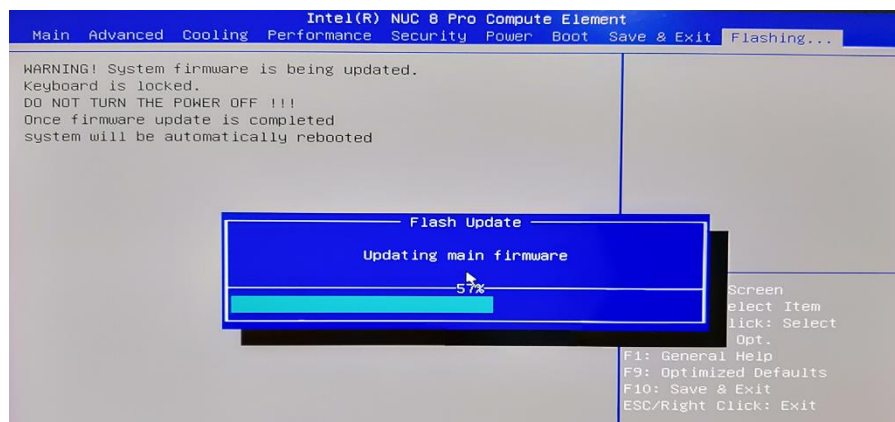

2. Double-click the *.EBU.exe file to run the Express BIOS update.
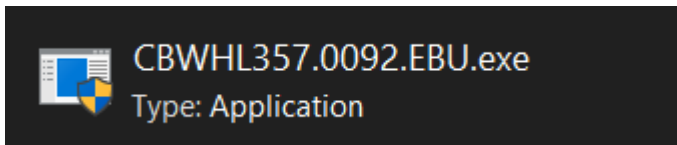
3. A command dialog appears. Press Y to restart the computer and start the update.

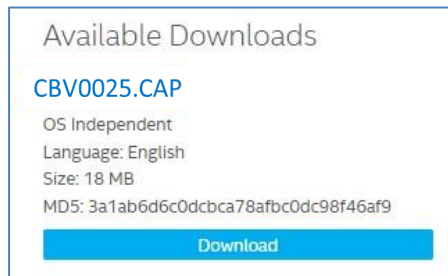4. Wait 2-5 minutes for the update to complete.

5. When the BIOS update is complete, the computer will boot back into Windows.
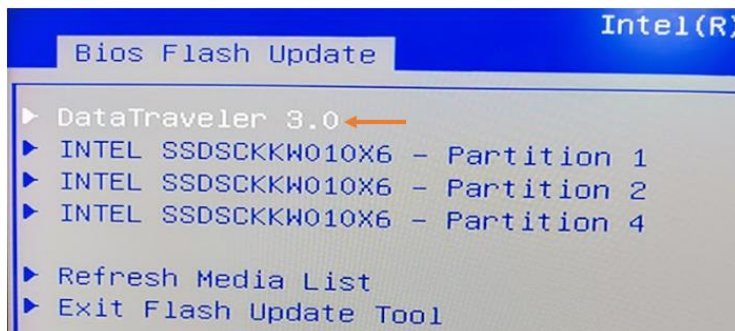
F7 Update Instructions

The F7 BIOS Flash Update allows you to update the system BIOS during the boot process and before the operating system loads.
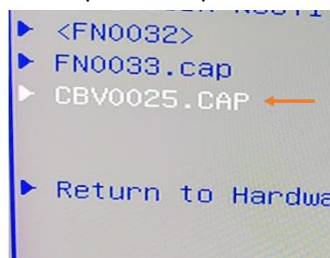
1. Download and save the Recovery BIOS capsule (**.cap**) file to a USB device. Example:

    Available Downloads

    CBV0025.CAP

    OS Independent
    Language: English
    Size: 18 MB
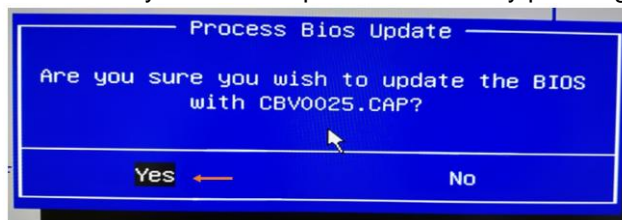   MD5: 3a1ab6d6c0dcbca78afbc0dc98f46af9

    Download

2. Plug the USB device into a USB port of the target computer.

3. Start the Intel NUC. During boot, when the F7 prompt is displayed, press **F7** to enter the BIOS Flash Update tool.

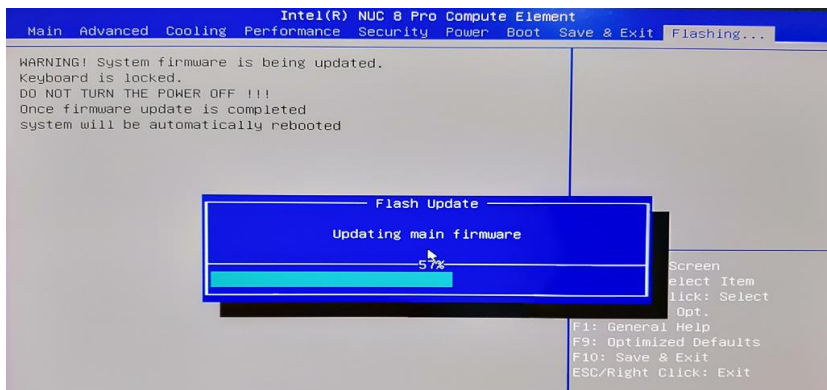4. Select the USB device and press Enter.

    Intel(R)

    Bios Flash Update

    ▶ DataTraveler 3.0 ⟵
    ▶ INTEL SSDSCKKW010X6 – Partition 1
    ▶ INTEL SSDSCKKW010X6 – Partition 2
    ▶ INTEL SSDSCKKW010X6 – Partition 4

    ▶ Refresh Media List
    ▶ Exit Flash Update Tool

5. Select the .cap file and press **Enter**

    ▶ <FN0032>
    ▶ FN0033.cap
    ▶ CBV0025.CAP ⟵

    ▶ Return to Hardwa

6. Confirm you want to update the BIOS by pressing Enter.

    ── Process Bios Update ──

    Are you sure you wish to update the BIOS
    with CBV0025.CAP?

    Yes ⟵   No

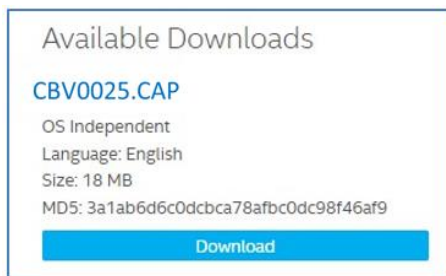7. Wait 2-5 minutes for the update to complete.

8. When the BIOS update is complete, the computer will boot back into Windows.

Power Button Menu 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 and save the **Recovery BIOS** (.cap) file to a USB device. Example:

2. Plug the USB device into a USB port of the Intel NUC when it is turned off (not in Hibernate or Sleep mode).

3. Press the power button and hold it down for three seconds, then release it before the 4-second shutdown override. The Power Button Menu appears. (Options on the menu can vary, depending on the Intel NUC model.)
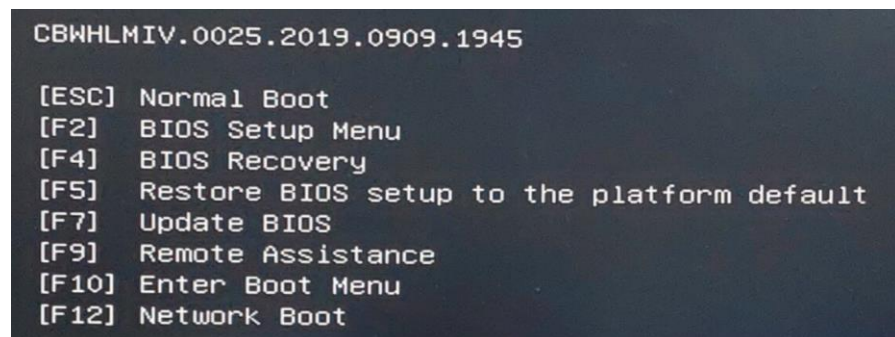
4. Press F7 to start the update.
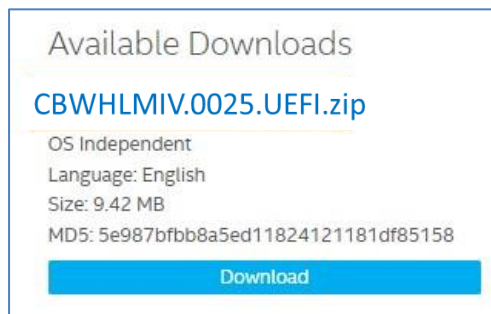
5. Wait 2-5 minutes for the update to complete.
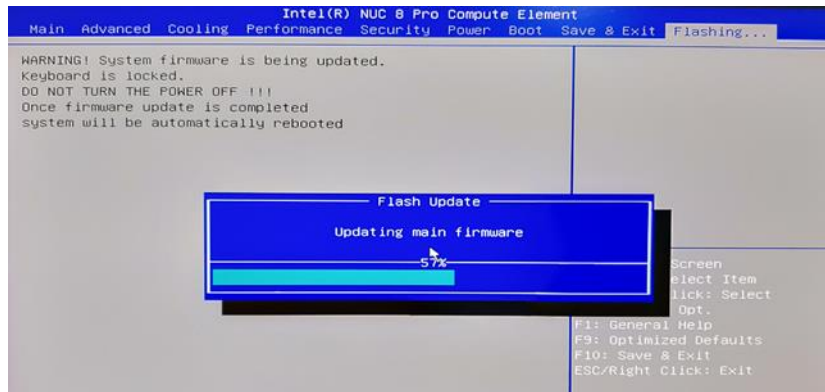
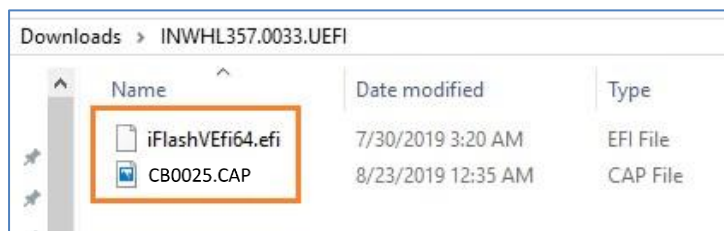6. When the BIOS update is complete, the computer will boot back into Windows.

UEFI Shell Update Instructions

The UEFI Flash BIOS update utility allows you to update the BIOS from the EFI Shell.

1. Download the UEFI Flash BIOS Update file (*.UEFI.zip). Example:

2. Double-click the *.UEFI.zip to extract its files.

3. Copy the iFlashVEfi64.efi and the .cap files to a USB device.

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 **Boot** > **Secure Boot.**
  c. Disable Secure Boot, if enabled.
  d. Go to **Boot** > **Boot Priority.**
  e. 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.**
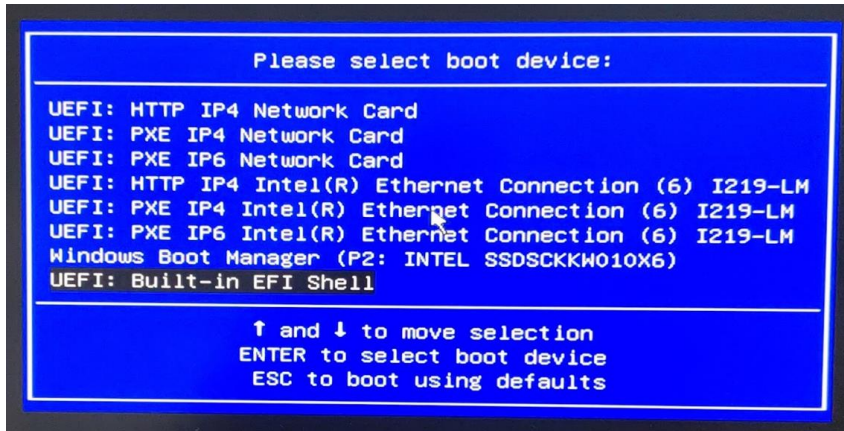
8. Change the current directory to the USB flash drive by entering the command **fsX:** where X is the drive number of the USB flash drive from the device mapping list. Example: if your USB drive is fs0, then type **fs0:** and press Enter.

9. At the command prompt, type **iFlashVEfi64.efi XXX.cap /q /jbc,** where XXX.cap is the filename of the .cap file and press Enter.
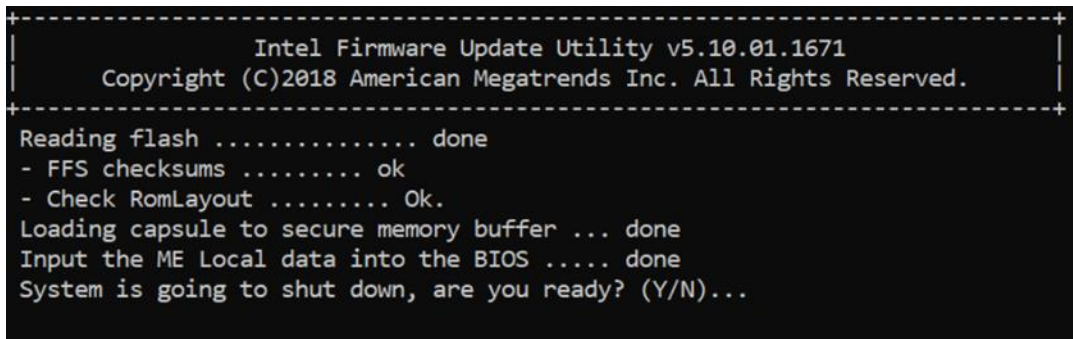
10. Press Y to begin the update.

11. Wait for the BIOS update to complete.

12. The computer will restart when finished.

13. Set the BIOS back to original settings:

      a. Restart the computer.
      b. Press **F2** during start to enter BIOS setup.
      c. Go to **Boot** > **Boot Priority.**
      d. Disable **Internal UEFI Shell.**
      e. Go to **Boot** > **Secure Boot.**
      f. Enable Secure Boot, if it was originally enabled.
      g. Press **F10** to save changes and exit BIOS Setup.

BIOS Recovery Instructions

In the unlikely event that a BIOS update is interrupted, it is possible the BIOS may be left in an unusable state.
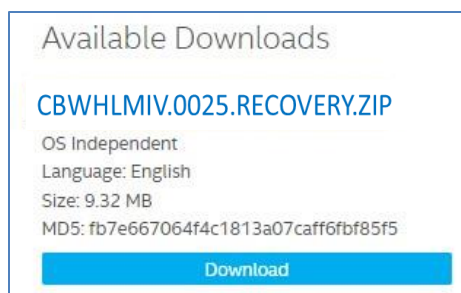
There are two options to perform a BIOS recovery:

- Power Button Menu
- Security Jumper

WARNING: This process is intended to be performed by a trained technician.

BIOS Recovery by the Power Button Menu

1. Download and save the Recovery BIOS file to a USB device. Example:

2. Copy the recovery file (*.cap) to a USB device.

3. Plug the device into a USB port of the target computer when it is turned OFF.

4. Press and hold the power button down for 3 seconds, then release it. The Power Button menu appears.
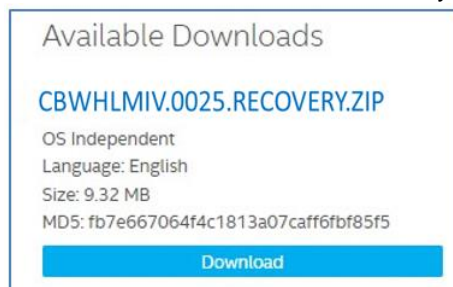


```
CBWHLMIV.0025.2019.0909.1945

[ESC] Normal Boot
[F2]  BIOS Setup Menu
[F4]  BIOS Recovery
[F5]  Restore BIOS setup to the platform default
[F7]  Update BIOS
[F9]  Remote Assistance
[F10] Enter Boot Menu
[F12] Network Boot
```

5. Press F4 to start the BIOS recovery.

6. Wait 2-5 minutes for the recovery process to complete.

7. The computer will either turn off when the recovery process is complete, or it will prompt you to turn it off.
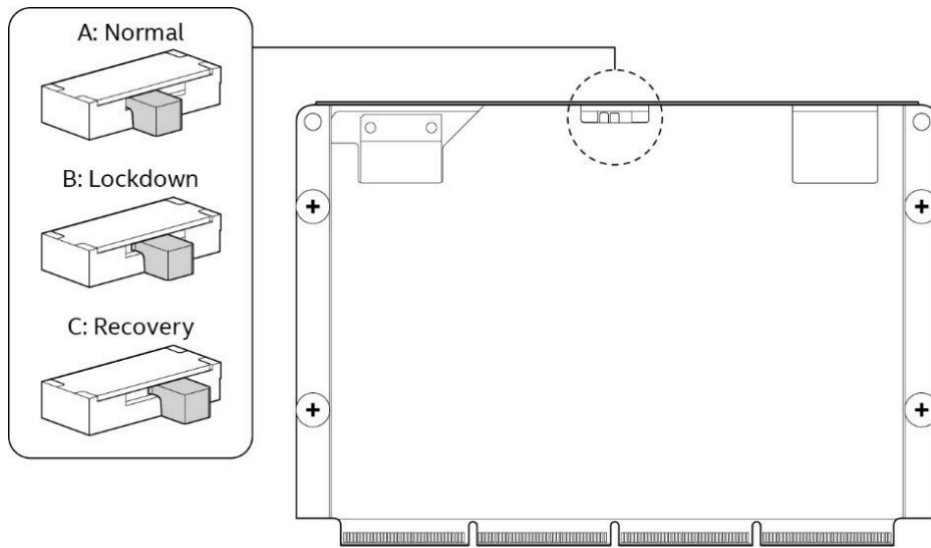8. Remove the USB device.

9. Restart the computer.

BIOS Recovery by the BIOS Security Switch

Note: BIOS recovery using the BIOS security switch will clear Trusted Platform Module (TPM) keys, Intel® Platform Trust Technology (Intel® PTT) keys, and High-bandwidth Digital Content Protection (HDCP) keys. These keys will not be restored after the BIOS recovery.

1. Download and save the Recovery BIOS (.cap) file to a USB device. Example:

Available Downloads

CBWHLMIV.0025.RECOVERY.ZIP
OS Independent
Language: English
Size: 9.32 MB
MD5: fb7e667064f4c1813a07caff6fbf85f5

Download

2. Copy the recovery file (*.cap) to a USB device.

3. Shut down the computer and unplug the AC power adapter.

4. Open the chassis and move the switch on the NUC Compute Element to "Recovery" position as in picture below. (See the Product Specification for details including the switch settings and configuration.)

5. Plug the USB device into a USB port of the target computer and turn it on.

6. Wait 2-5 minutes for the recovery process to complete.

7. The computer will either turn off when the recovery process is complete, or it will prompt you to turn it off.

8. Remove the USB device.

9. Move the bios recovery switch to "Normal" postion.

10. Close the chassis.

11. Restart the computer.