



Intel® NUC 11 Extreme Kit NUC11BTMi7

Intel® NUC 11 Extreme Kit NUC11BTMi9

User Guide

August 2021



You may not use or facilitate the use of this document in connection with any infringement or other legal analysis concerning Intel products described herein. You agree to grant Intel a non-exclusive, royalty-free license to any patent claim thereafter drafted which includes subject matter disclosed herein.

No license (express or implied, by estoppel or otherwise) to any intellectual property rights is granted by this document.

All information provided here is subject to change without notice. Contact your Intel representative to obtain the latest Intel product specifications and roadmaps.

The products described may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Copies of documents which have an order number and are referenced in this document may be obtained by calling 1-800-548-4725 or by visiting: <http://www.intel.com/design/literature.htm>.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure.

Intel and the Intel logo are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

*Other names and brands may be claimed as the property of others.

Copyright © 2021, Intel Corporation. All rights reserved.



Contents

1.0	Introduction	5
1.1	Before You Begin	5
1.2	Installation Precautions.....	5
1.3	Observe Safety and Regulatory Requirements.....	6
2.0	Open the Chassis	7
3.0	System Memory	13
4.0	Change the M.2 SSD	16
5.0	Close the Chassis	20
6.0	Connect Power	26
7.0	Install an Operating System	28
8.0	Install the Latest Device Drivers and Software	29



Revision History

Date	Revision	Description
August 2021	1.0	Initial release.



1.0 Introduction

This User Guide provides step-by-step installation instructions for these products:

- Intel® NUC 11 Extreme Kit NUC11BTMi7
- Intel® NUC 11 Extreme Kit NUC11BTMi9

1.1 Before You Begin



CAUTIONS

The steps in this guide assume you're familiar with computer terminology and with the safety practices and regulatory compliance required for using and modifying computer equipment.

Disconnect the computer from its power source and from any network before performing any of the steps described in this guide.

Failure to disconnect power, telecommunications links, or networks before you open the computer or perform any procedures can result in personal injury or equipment damage. Some circuitry on the board can continue to operate even though the front panel power button is off.

Follow these guidelines before you begin:

- Always follow the steps in each procedure in the correct order.
- Create a log to record information about your computer, such as model, serial numbers, installed options, and configuration information.
- Electrostatic discharge (ESD) can damage components. Perform the procedures described in this chapter only at an ESD workstation using an antistatic wrist strap and a conductive foam pad. If such a station isn't available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the computer chassis.

1.2 Installation Precautions

When you install and test the Intel NUC, observe all warnings and cautions in the installation instructions.

To avoid injury, be careful of:



- Sharp pins on connectors
- Sharp pins on circuit boards
- Rough edges and sharp corners on the chassis
- Hot components (such as SSDs, processors, voltage regulators, and heat sinks)
- Damage to wires that could cause a short circuit

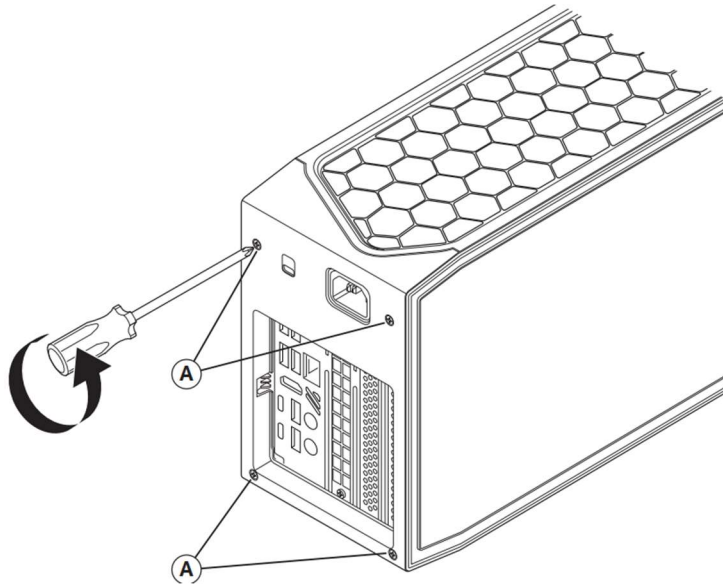
Observe all warnings and cautions that instruct you to refer computer servicing to qualified technical personnel.

1.3 Observe Safety and Regulatory Requirements

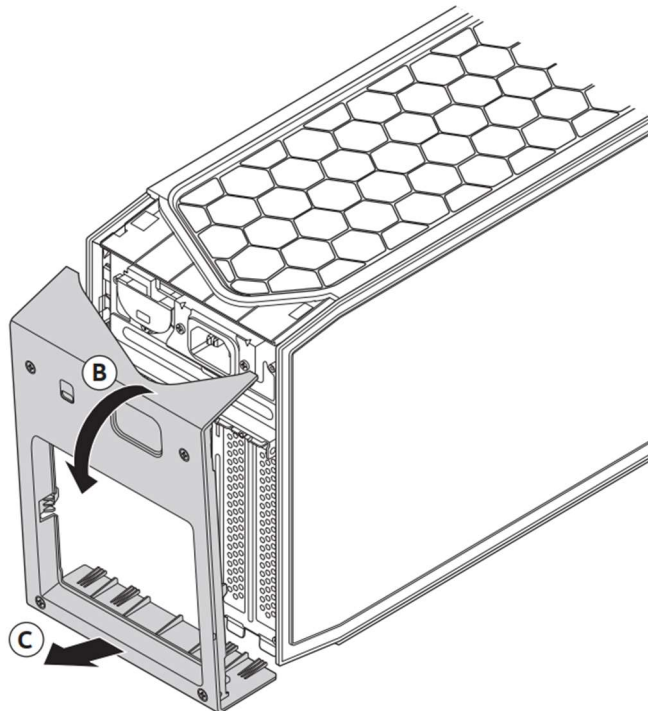
If you don't follow these instructions, you increase your safety risk and the possibility of noncompliance with regional laws and regulations.

2.0 *Open the Chassis*

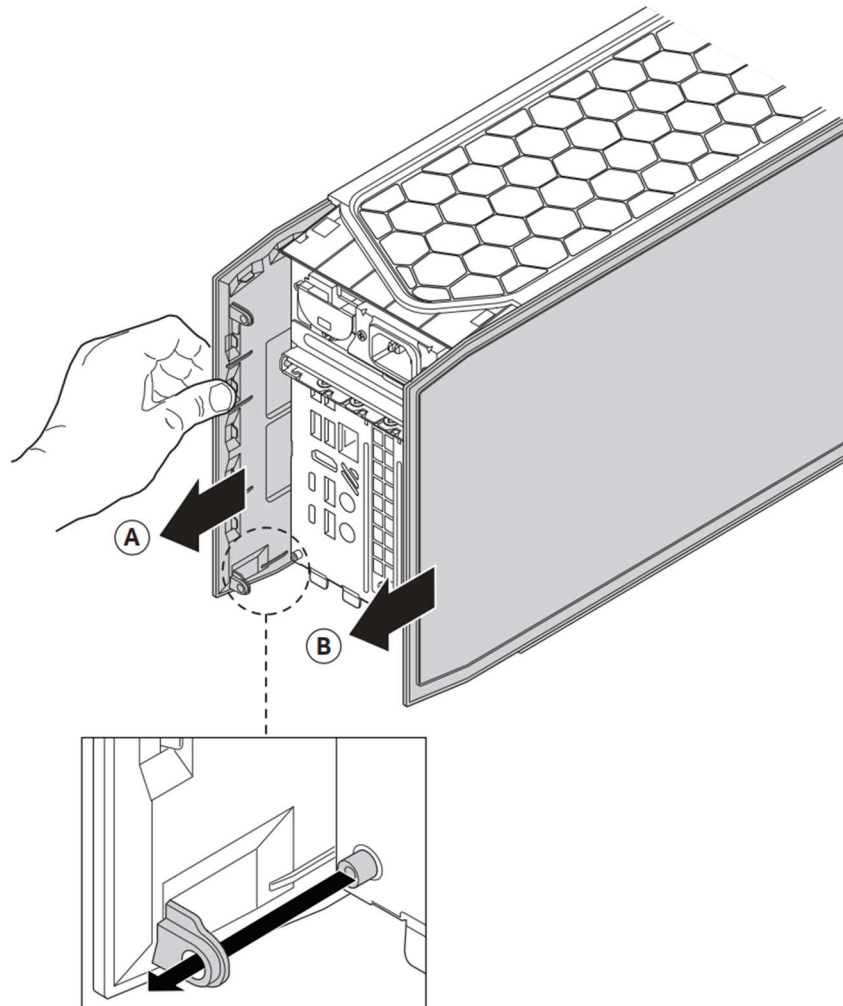
1. Unscrew the four screws on the rear side of the chassis and shift the cover:



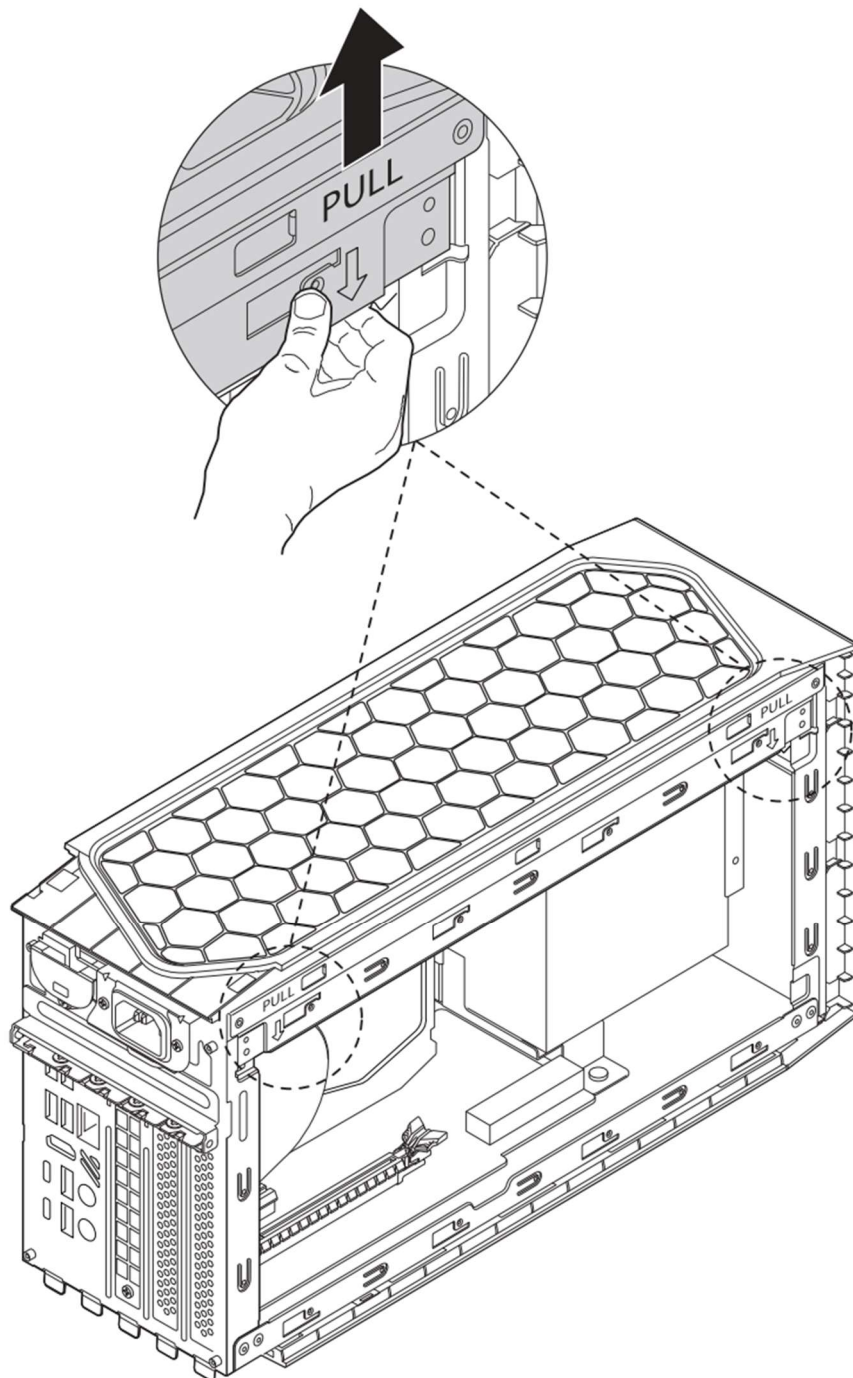
2. Remove back panel:

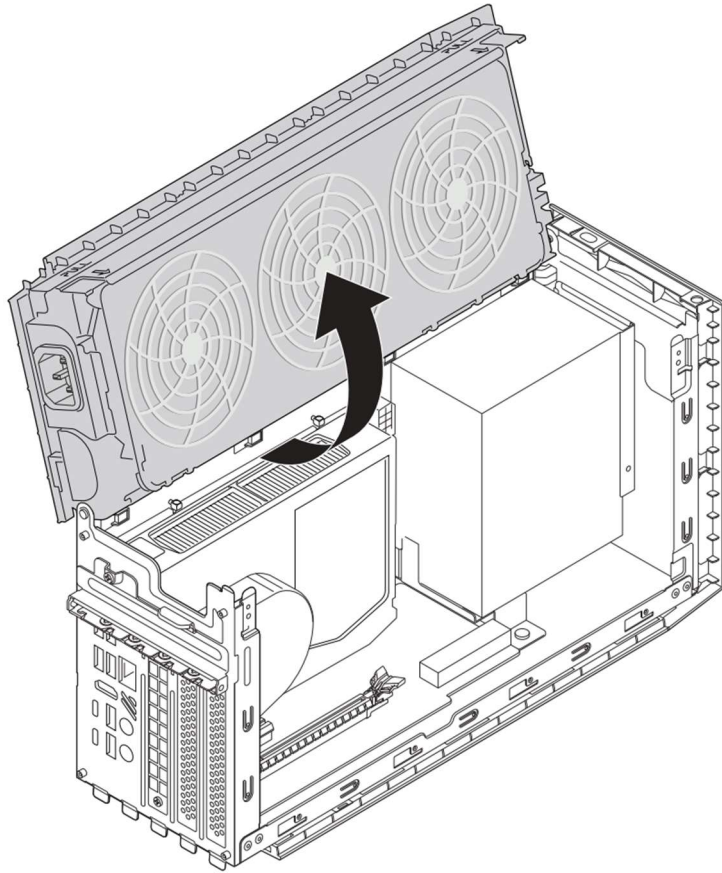


3. Remove the both side panels:

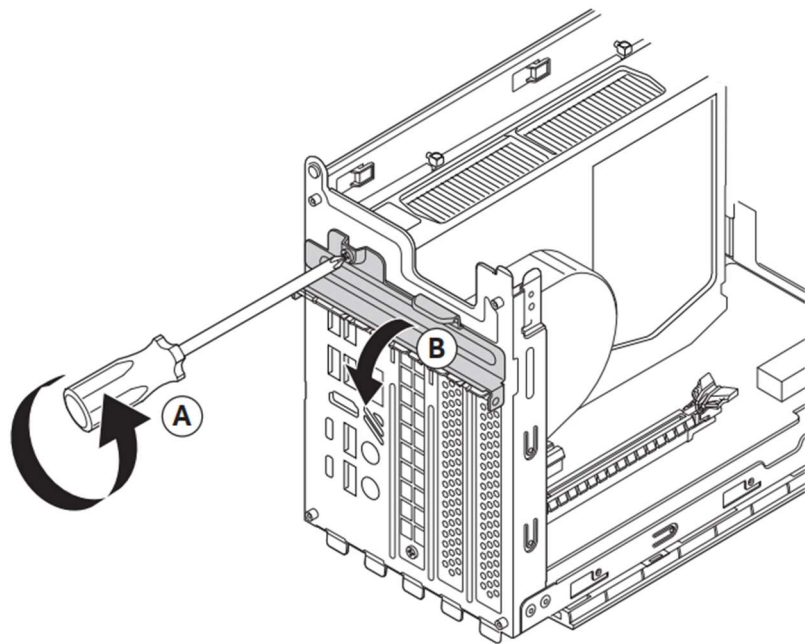


4. Flip the top fan lid:

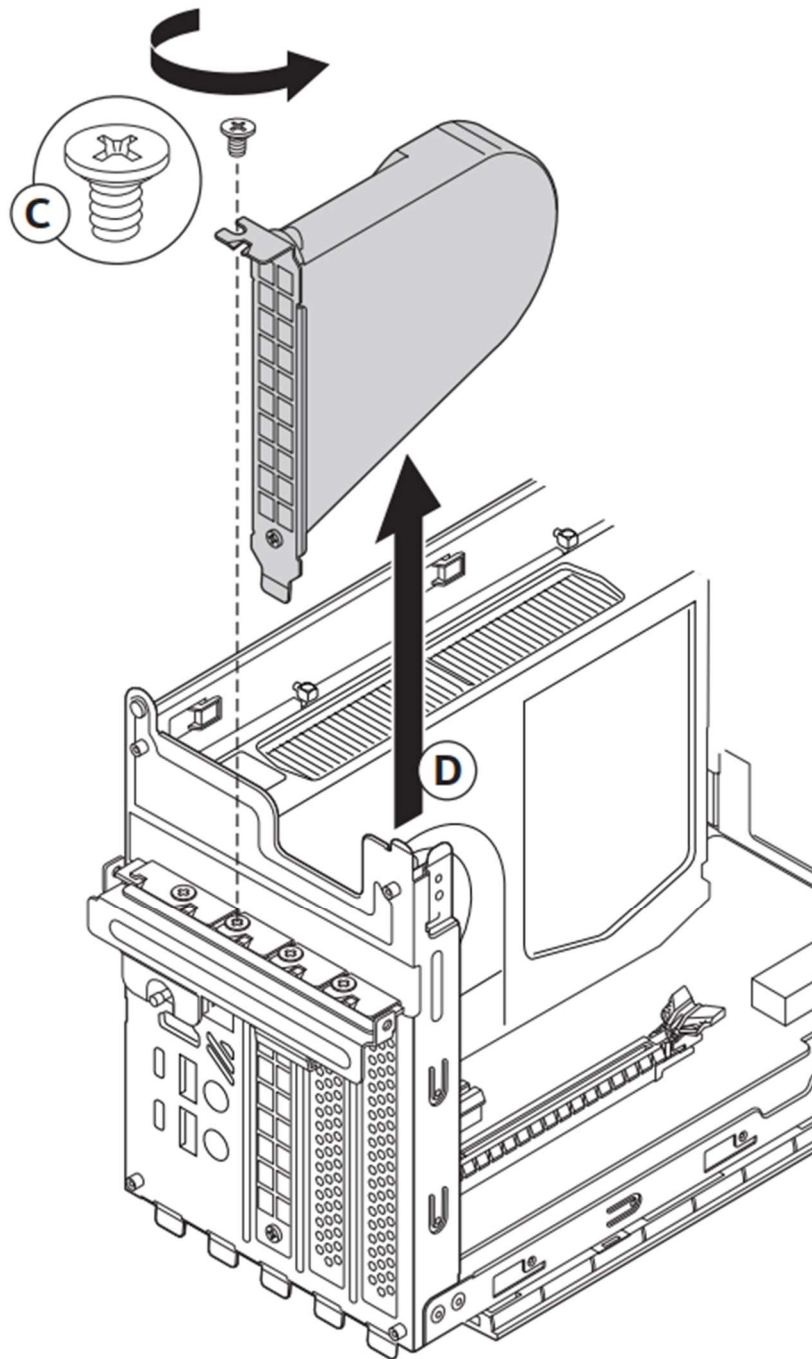




5. Flip PCIe bracket holder down:

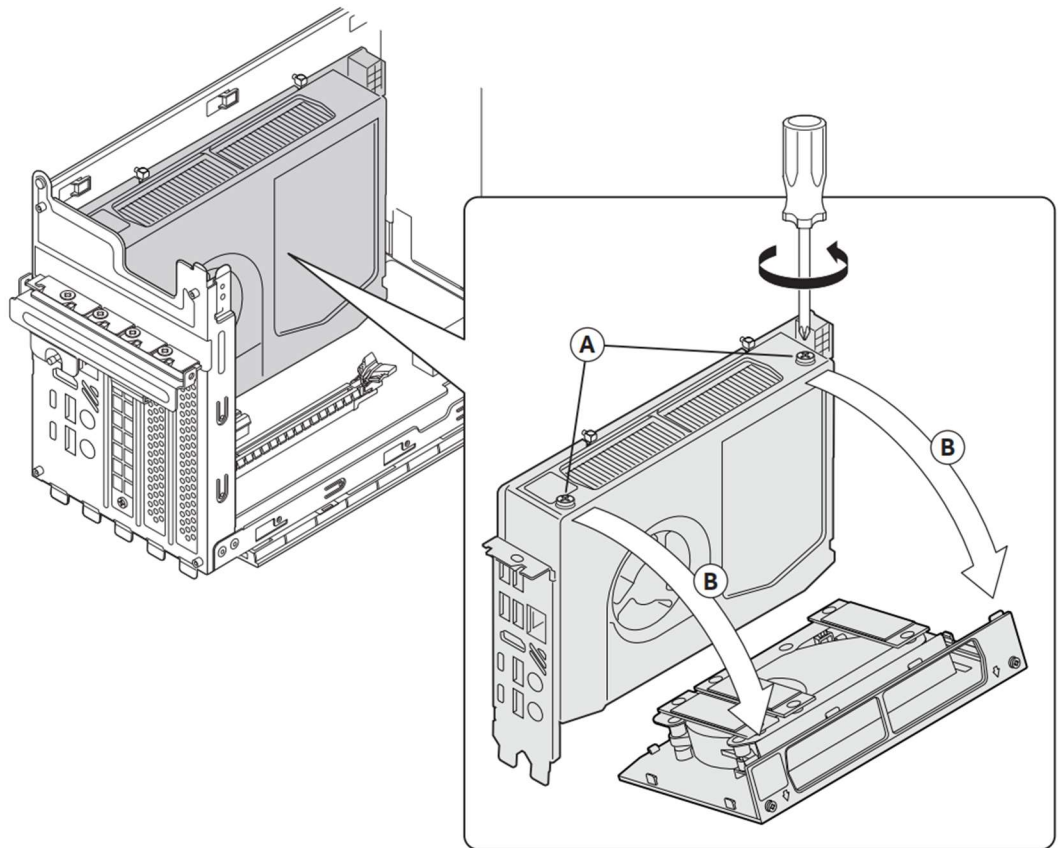


6. Remove Compute Element air flow cover:





7. Remove Compute Element fan assembly:





3.0 System Memory

Intel® NUC kit NUC11BTMi7 and NUC11BTMi9 have two 260-pin DDR4 SO-DIMM sockets. Be sure to select memory modules that meet these requirements:

- 1.2V low voltage memory
 - 1.35V via XMP support
- 3200 MHz SO-DIMMs
- Max capacity - 64GB
- Non-ECC

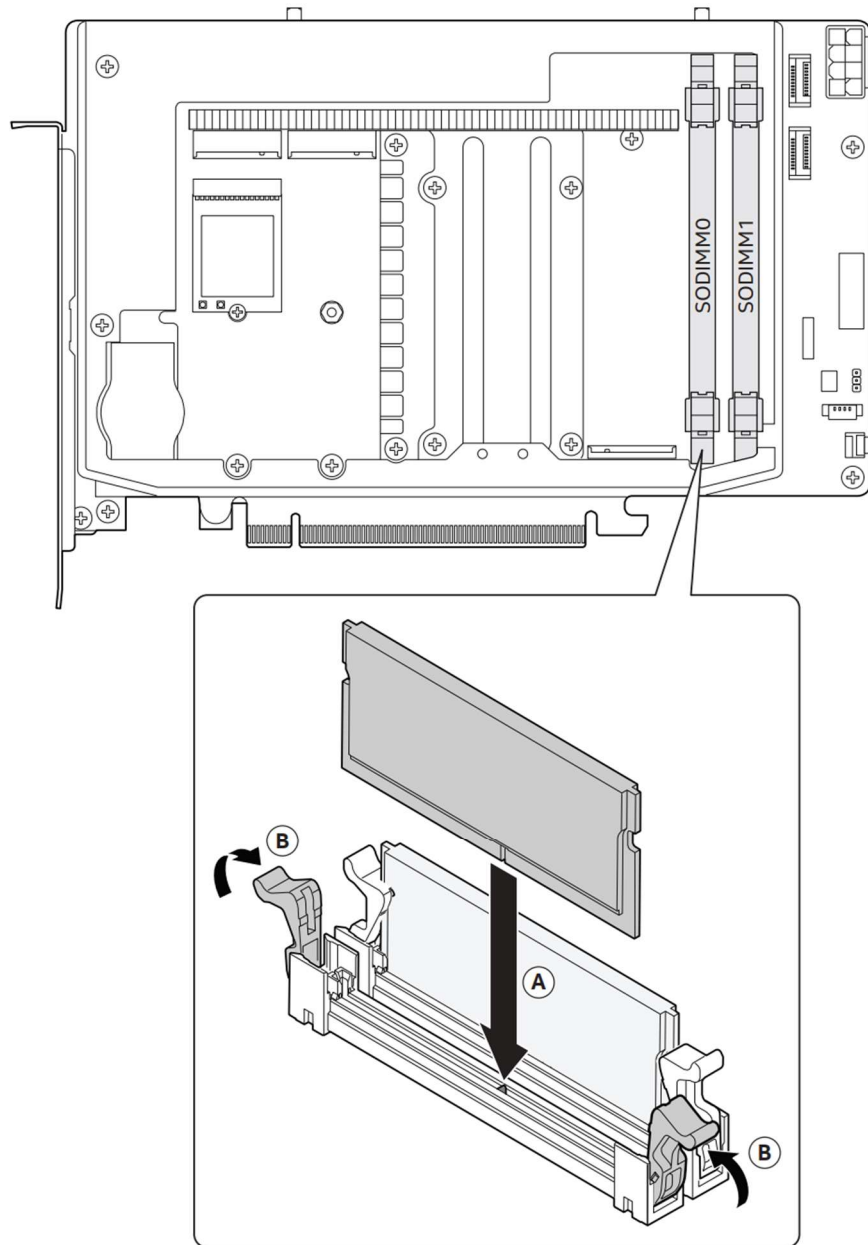
Find compatible memory modules in the Intel Product Compatibility Tool

- [NUC11BTMi7](#)
- [NUC11BTMi9](#)

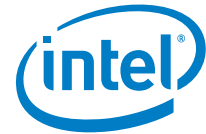
NOTE	If you plan to install only one memory module, install it in the left (SODIMM0) memory socket.
-------------	--

To install memory, follow these steps:

1. Observe the precautions in "Before You Begin" on page 5.
2. Turn off all peripheral devices connected to the computer. Turn off the computer and disconnect the power cord.



3. Align the small space at the bottom edge of the memory module with the key in the socket.
4. Insert the bottom edge of the module at a 45-degree angle into the socket (A).
5. When the module is inserted, push down on the outer edge of module until the retaining clips snap into place (B).



To remove a SO-DIMM, follow these steps:

1. Observe the precautions in "Before You Begin" on page 5.
2. Turn off all peripheral devices connected to the computer. Turn off the computer and disconnect the power cord.
3. Remove the computer's bottom chassis cover.
4. Gently spread the retaining clips at each end of the memory socket, which causes the module to pop out of the socket.
5. Holding the module by the edges, lift it away from the socket, and store it in an anti-static package.
6. Reinstall and reconnect any parts you removed or disconnected to reach the memory sockets.
7. Replace the computer's cover and reconnect the power cord.



4.0 *Install an M.2 SSD*

Intel® NUC kit NUC11BTMi7 and NUC11BTMi9 support 2x 42mm/80mm, 1x80mm, and 1x 80/110mm SSDs. The compute element supports 2x42mm or 3x 80mm. Under the chassis SSD compartment supports 1x 80/110mm.

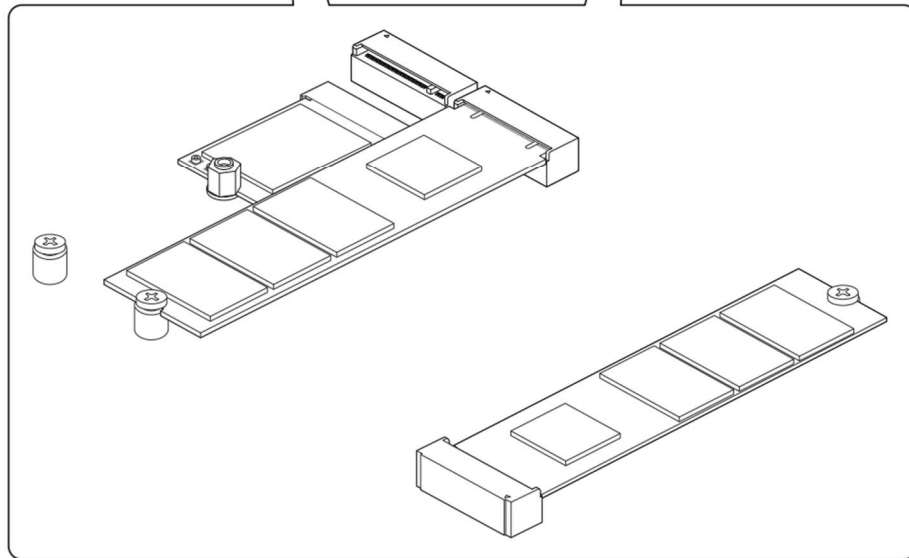
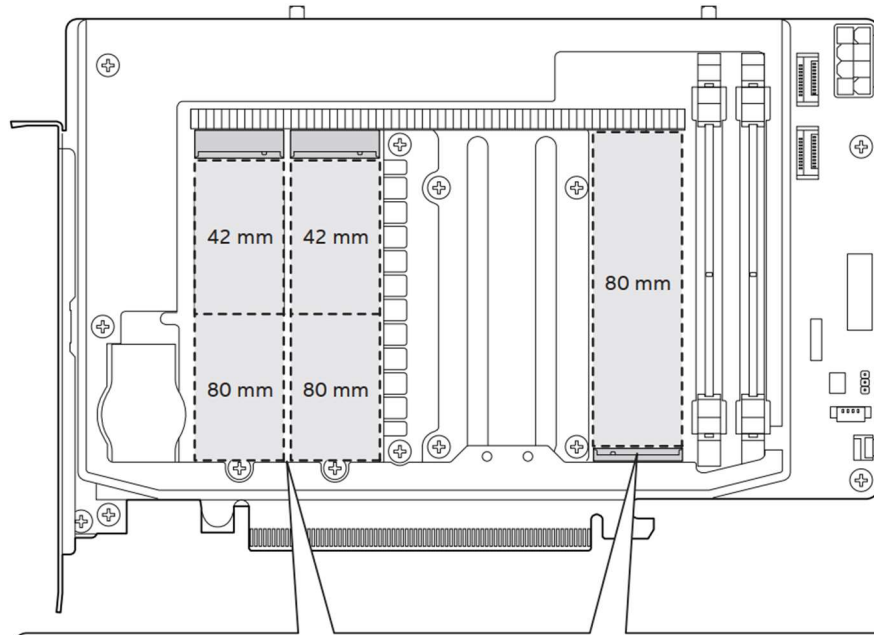
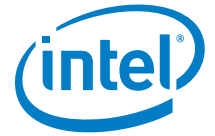
There are no pre-installed SSD available out of the box for the above SKUs.

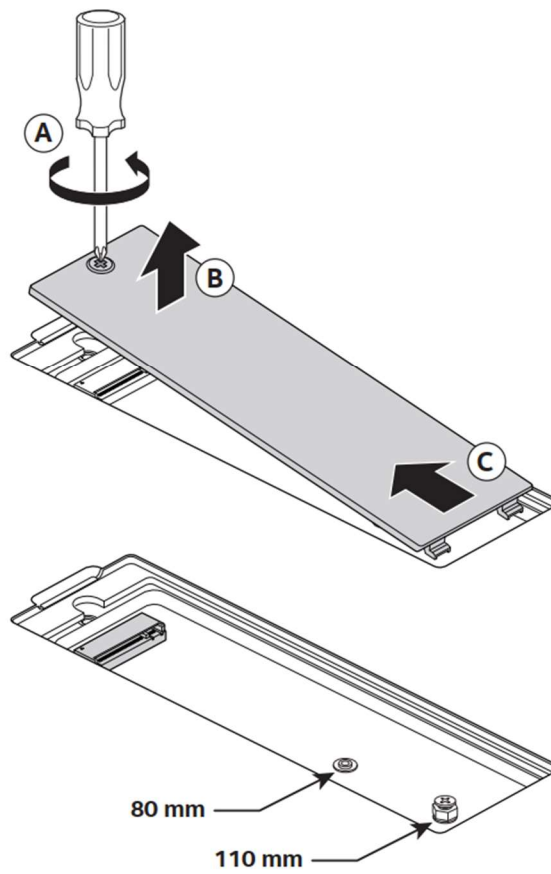
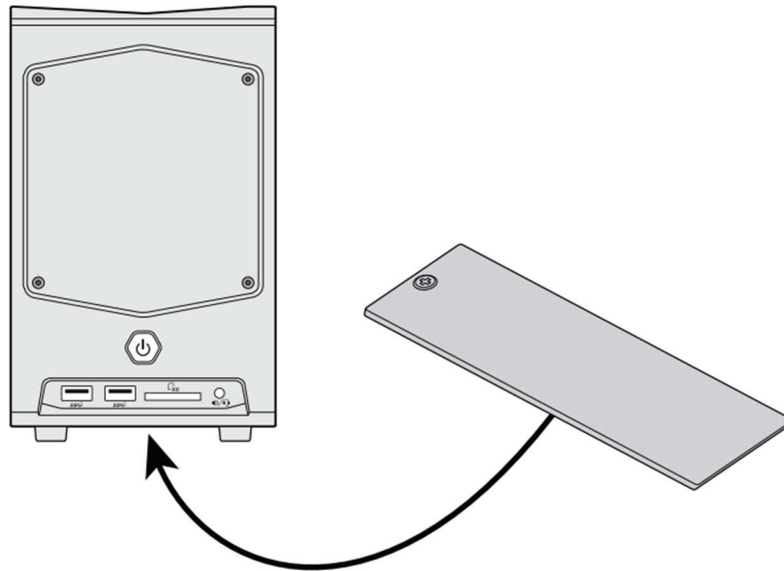
Find compatible M.2 SSDs in the Intel Product Compatibility Tool:

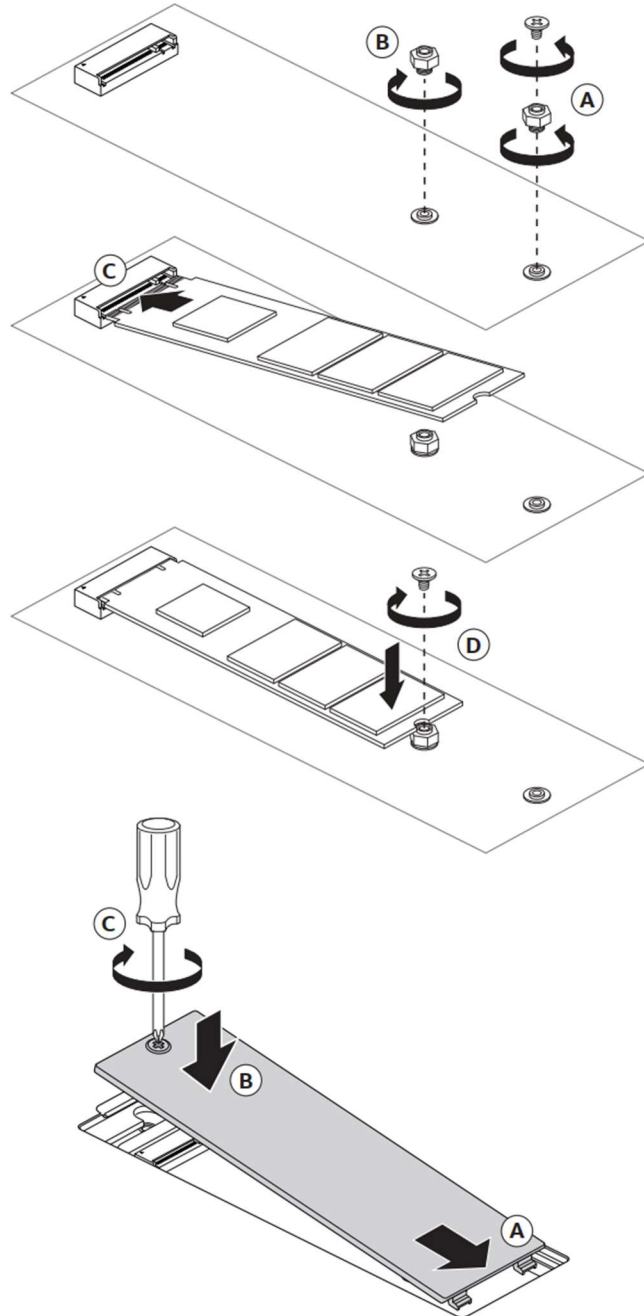
- [NUC11BTMi7](#)
- [NUC11BTMi9](#)

To install an M.2 SSD:

1. Remove the small silver screw from the 110mm, 80mm or 42mm metal standoff on the board.
2. Remove the pre-installed SSD from the connector if there are any.
3. Make sure there is the metal standoff in the right position, depending on the length of the SSD you are going to install.
4. Align the space at the bottom of the new M.2 SSD to the key on the connector.
5. Secure the card to the standoff with the small silver screw.



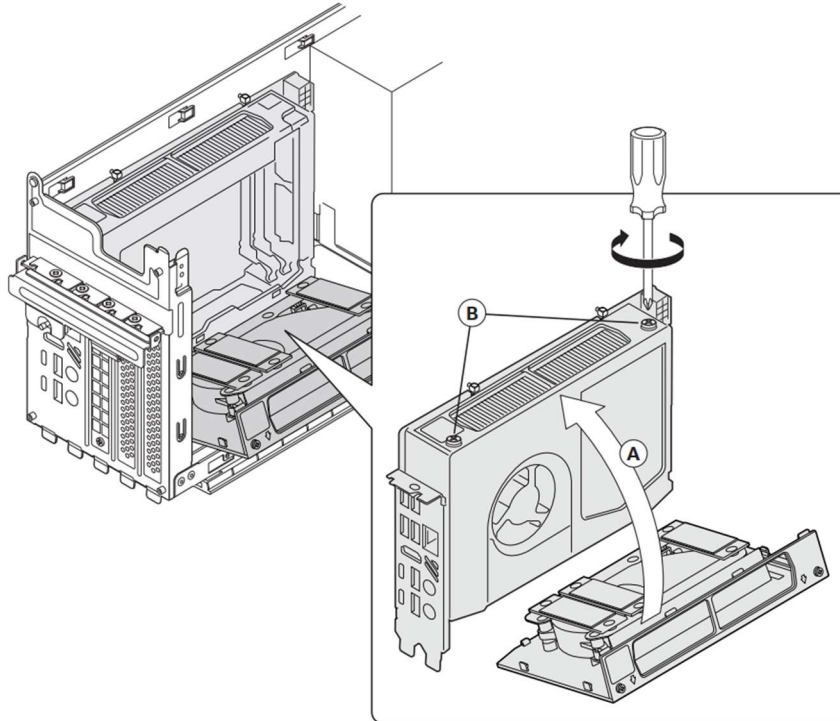




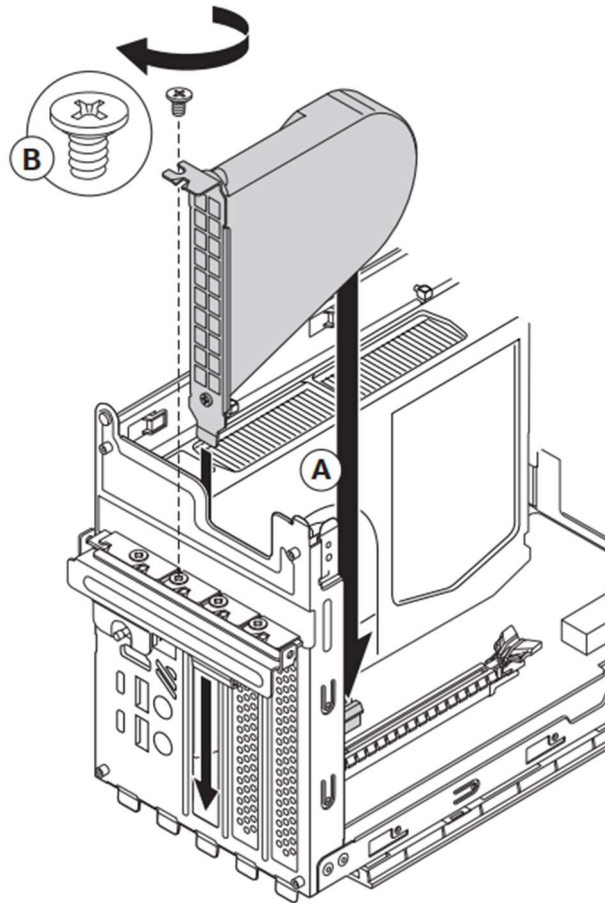
5.0 Close the Chassis

After all components have been installed, close the Intel NUC chassis. Intel recommends this be done by hand with a screwdriver to avoid over-tightening and possibly damaging the screws.

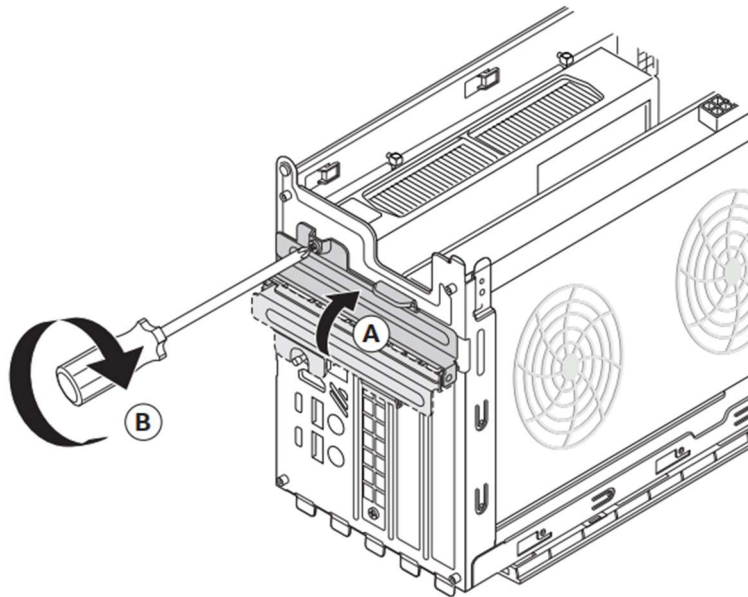
1. Close the NUC door and connect two bottom screws:



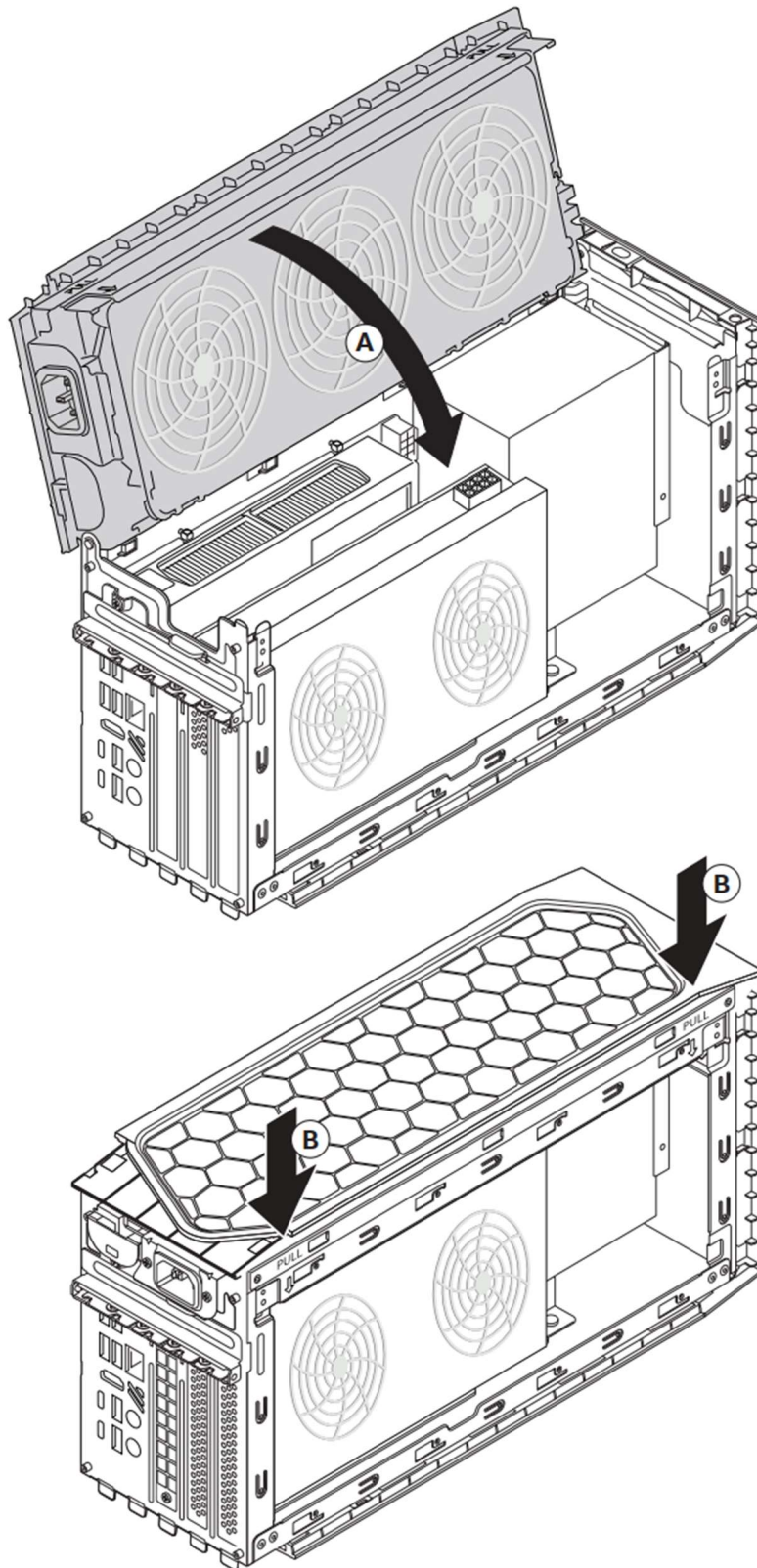
2. Install Compute Element air flow cover:



3. Flip PCIe bracket holder up and secure:

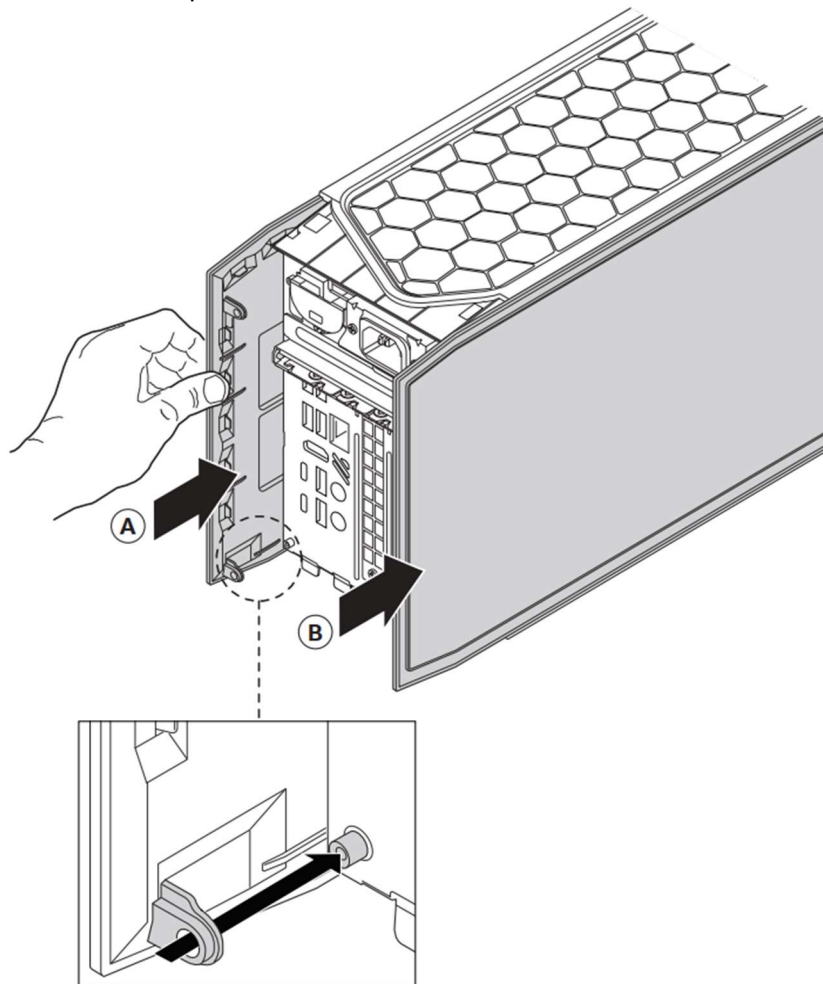


4. Close and secure fan assembly lid:

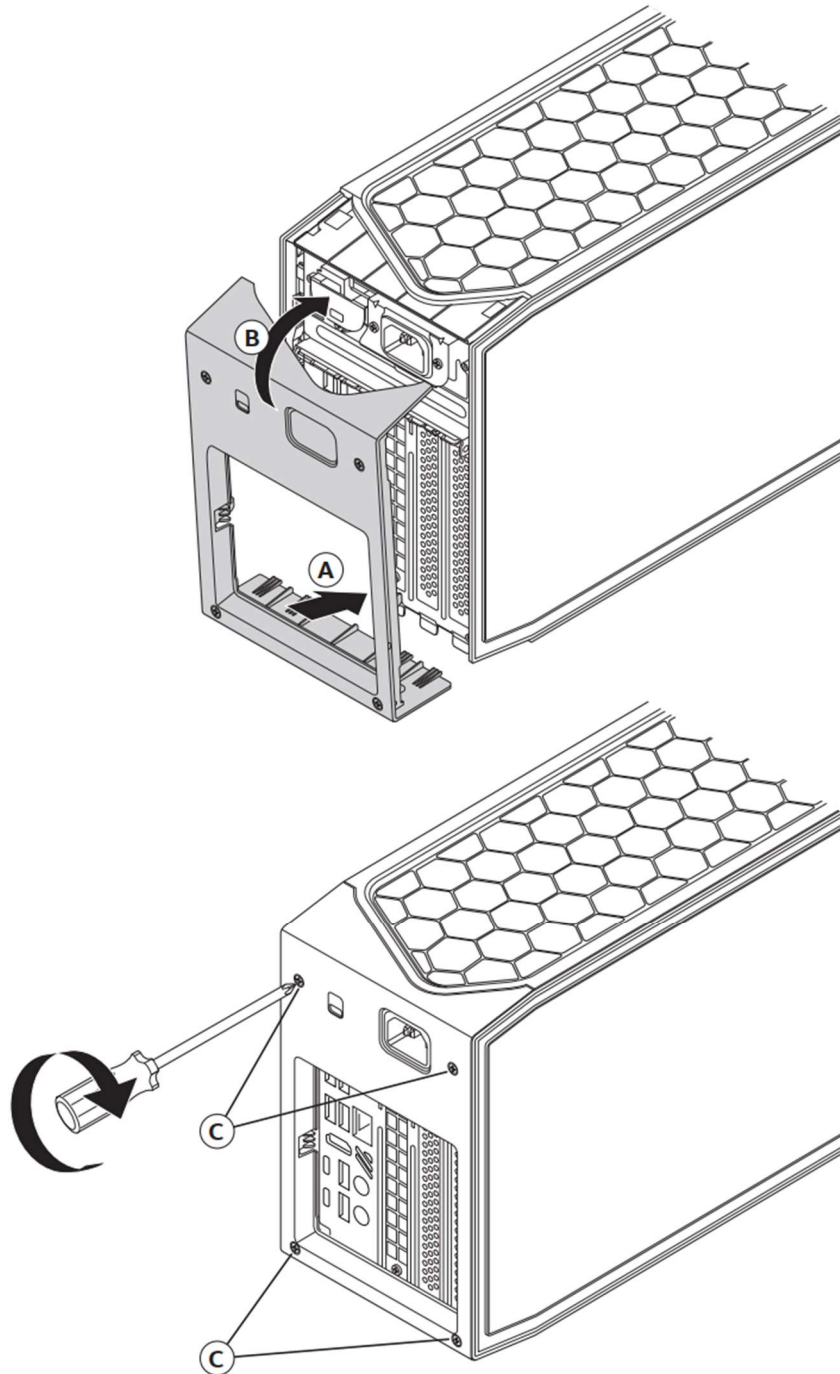


5.

6. Install the side panels:



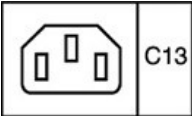
7. Install the back cover:

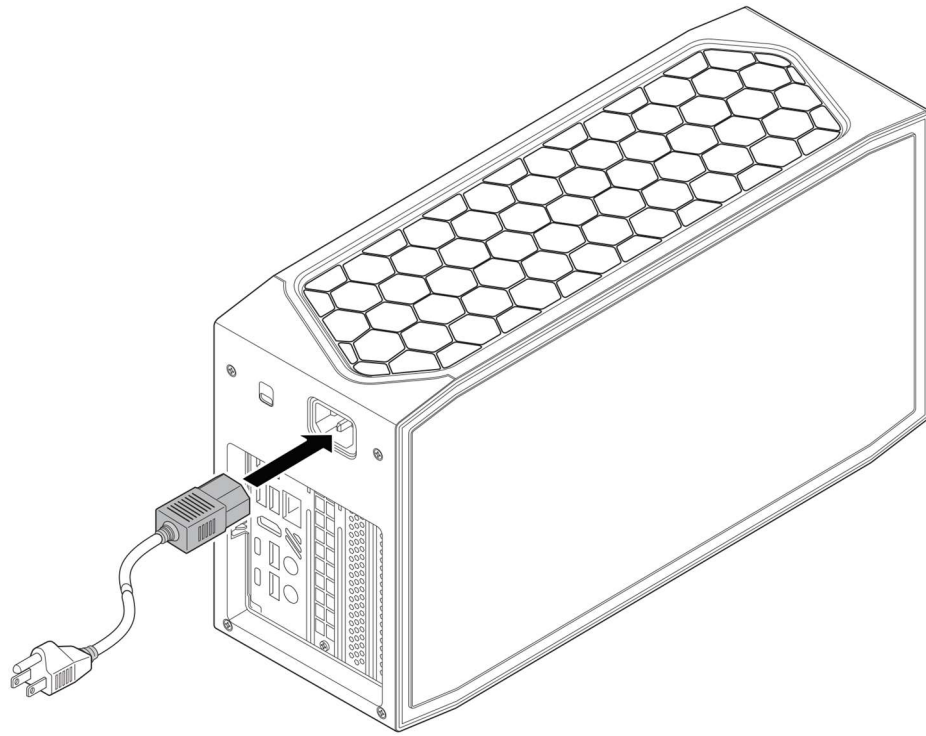


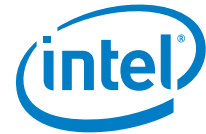


6.0 Connect Power

Each Intel NUC model includes either a region-specific AC power cord or no AC power cord.

Product codes	Power cord type
RNUC11BTMi70000 RNUC11BTMi90000	No power cord included. An AC power cord needs to be purchased separately. The connector on the power adapter is a C13 type connector. 
RNUC11BTMi70001 RNUC11BTMi90001	US power cord included.
RNUC11BTMi70002 RNUC11BTMi90002	EU power cord included.
RNUC11BTMi70003 RNUC11BTMi90003	UK power cord included.
RNUC11BTMi70004 RNUC11BTMi90004	Australia/New Zealand power cord included.
RNUC11BTMi70006 RNUC11BTMi90006	China power cord included.





7.0 *Install an Operating System*

See [Supported Operating Systems](#) for a list of Intel-validated Windows* operating systems.

The [Intel Product Compatibility Tool](#) lists versions of Linux* that have been reported as compatible by Intel NUC owners. If you need assistance with Linux on your Intel NUC, check the distribution's website and forums for peer assistance.

Refer to [Operating System Installation](#) for system requirements and installation steps.



8.0 *Install the Latest Device Drivers and Software*

Here are the options for keeping device drivers current:

- Allow the [Intel® Driver & Support Assistant \(Intel® DSA\)](#) to detect out-of-date drivers
- Manually download drivers, BIOS, and software from Download Center:
 - [NUC11BTMi7](#)
 - [NUC11BTMi9](#)

The following device drivers and software are available.

- Intel® Chipset Device Software
- Intel® Graphics
- Intel® Management Engine
- Intel® Gigabit Ethernet
- Intel® Wireless
- Intel® Bluetooth
- Realtek* High Definition Audio
- Intel® Serial IO
- Thunderbolt® Networking Driver