

Intel® NUC Kit NUC7i3BNHX1 with Intel® Optane™ Memory

Intel® NUC Kit NUC7i5BNHX1 with Intel® Optane™ Memory

Intel® NUC Kit NUC7i7BNHX1 with Intel® Optane™ Memory

User Guide

Before You Begin



CAUTIONS

The procedures in this user guide assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.

Disconnect the computer from its power source and from any telecommunications link or network before performing any of the procedures 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.
- Set up 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 is not available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the computer chassis.

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.

Observe Safety and Regulatory Requirements

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

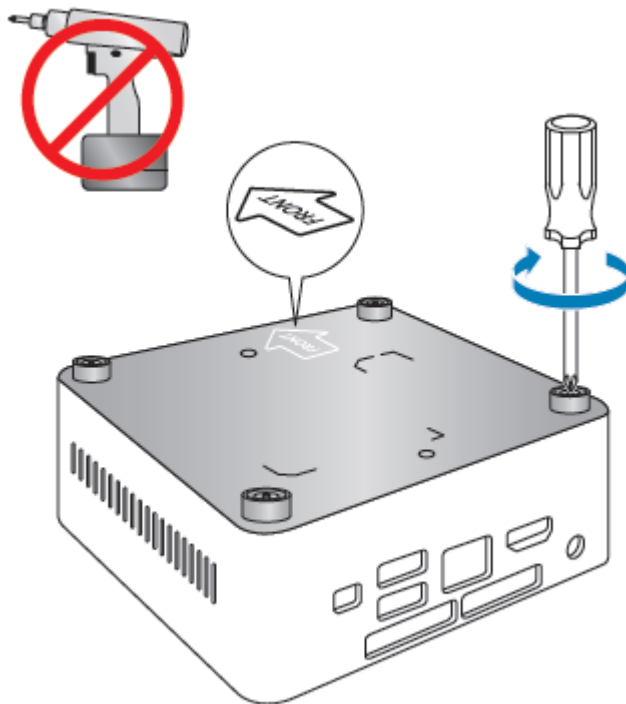
This guide tells you how to:

- [Install and remove memory](#)
- [Install an M.2 SSD](#)
- [Install a 2.5" drive](#)
- [Install a VESA mount bracket](#)
- [Connect power](#)
- [Install an operating system](#)
- [Install the latest drivers and software](#)

Open the Intel NUC Chassis

To open the Intel NUC chassis, follow these steps:

1. With a screwdriver unscrew the four corner screws on the bottom cover of the chassis and lift the cover (using an electric or battery operated screw driver can damage the NUC).



Installing and Removing Memory

Intel NUC Kits NUC7i3BNHX1, NUC7i5BNHX1 and NUC7i7BNHX1 have two 260-pin DDR4 SO-DIMM sockets. Be sure to select memory modules that meet these requirements:

- 1.2V low voltage memory
- 2133 MHz SO-DIMMs
- Non-ECC

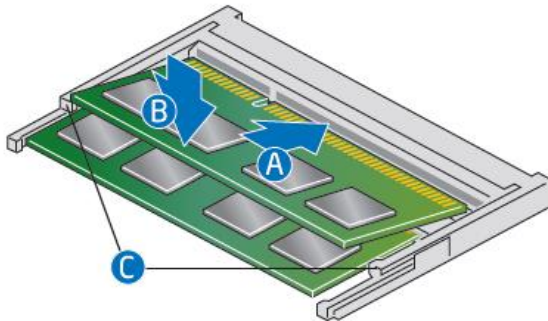
Find compatible memory modules in the Intel Product Compatibility Tool

- [NUC7i3BNHX1](#)
- [NUC7i5BNHX1](#)
- [NUC7i7BNHX1](#)

NOTE	If you plan to install only one memory module, install it in the lower memory socket.
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To install memory, follow these steps:

1. Observe the precautions in "Before You Begin" on page 2.
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. Align the small space at the bottom edge of the memory module with the key in the socket.
5. Insert the bottom edge of the module at a 45 degree angle into the socket (A).
6. When the module is inserted, push down on the outer edge of module until the retaining clips snap into place (B). Make sure the clips are firmly in place (C).

To remove a SO-DIMM, follow these steps:

1. Observe the precautions in "Before You Begin" on page 2.
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 (C).
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.

Install an M.2 SSD or Intel® Optane™ Memory Module

The Intel NUC Kits NUC7i3BNHX1, NUC7i5BNHX1 and NUC7i7BNHX1 support 80mm and 42mm SSDs.

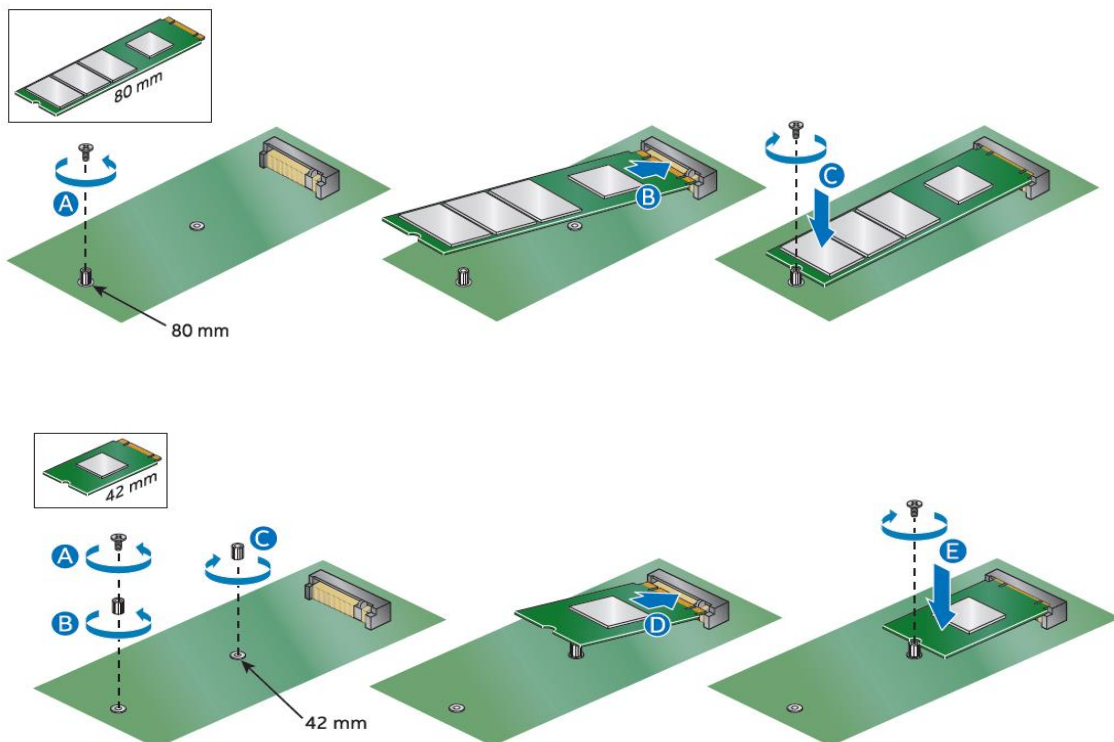
Find compatible M.2 SSDs in the Intel Product Compatibility Tool

- [NUC7i3BNHX1](#)
- [NUC7i5BNHX1](#)
- [NUC7i7BNHX1](#)

NOTE	Before changing the Intel Optane memory module, it needs to be disabled. Follow Removing Intel Optane Memory on this page first, before taking the module out.
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To Change an M.2 SSD:

1. Remove the small silver screw from the 80mm or 42mm metal standoff on the board (A).
2. Remove the pre-installed SSD/Intel Optane Memory from the connector.
3. Align the space at the bottom of the new M.2 SSD to the key on the connector.
4. Insert the bottom edge of the M.2 SSD into the connector (B).
5. Secure the card to the standoff with the small silver screw (C).



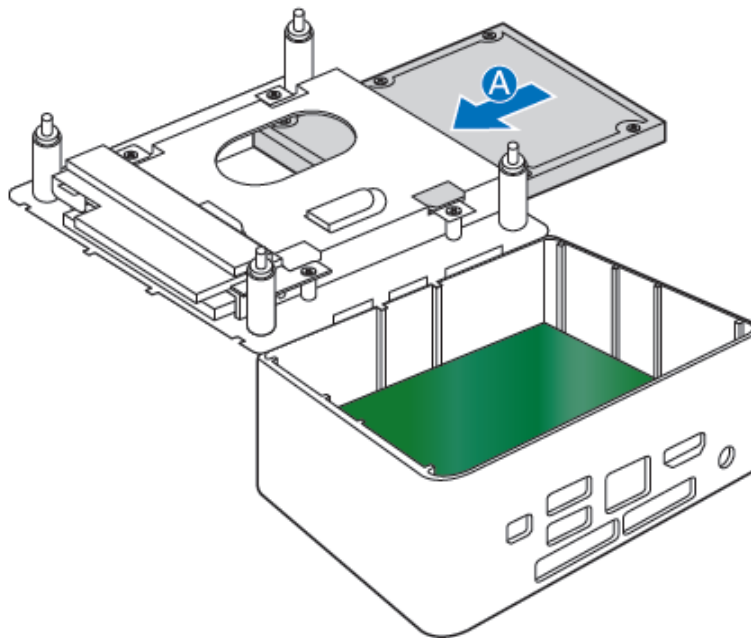
Install a 2.5" SSD or Hard Drive

The Intel NUC Kits NUC7i3BNHX1, NUC7i5BNHX1 and NUC7i7BNHX1 support an additional 2.5" Solid State Drive (SSD) or Hard Disk Drive (HDD).

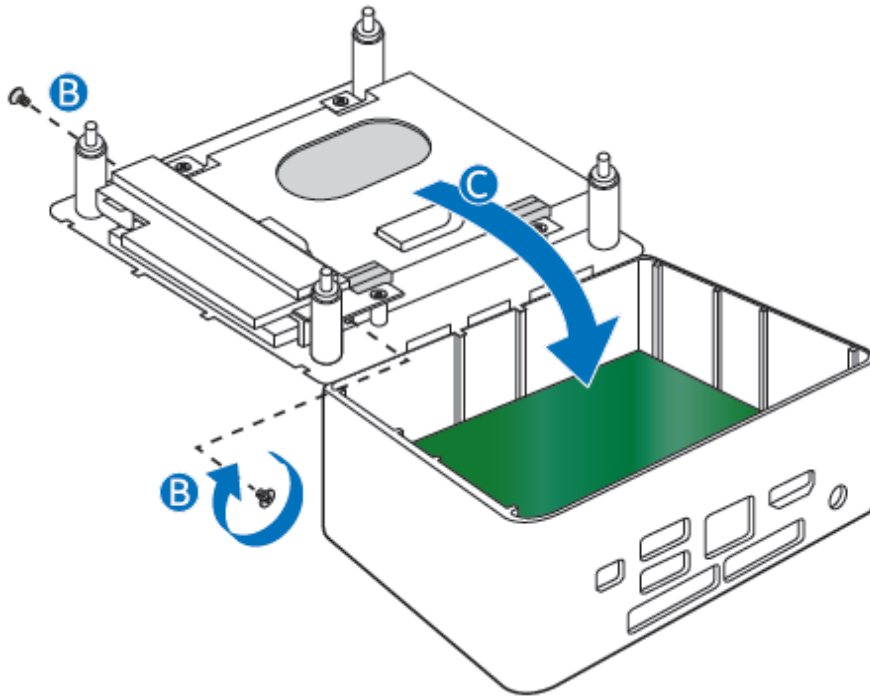
Find compatible 2.5" drives in the Intel Product Compatibility Tool:

- [NUC7i3BNHX1](#)
- [NUC7i5BNHX1](#)
- [NUC7i7BNHX1](#)

1. Slide the new 2.5" drive into the drive bay, ensuring the SATA connectors are fully seated into the connectors of the SATA daughter card (A).

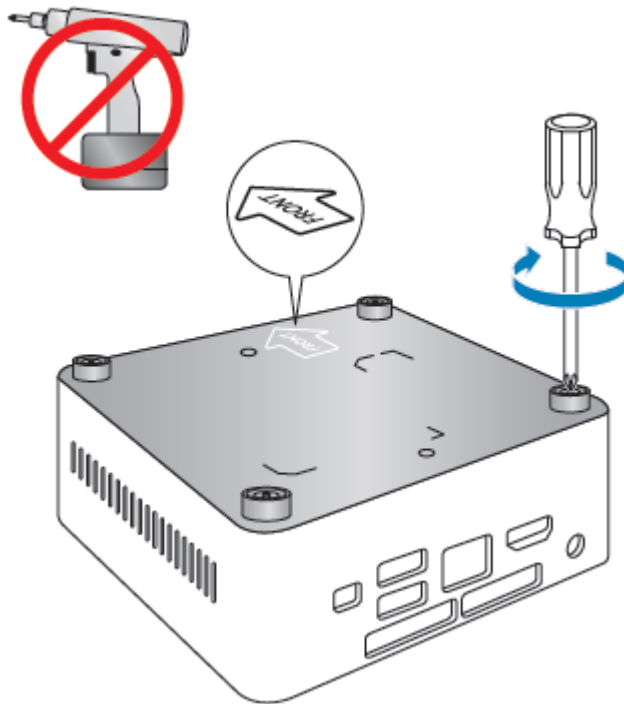


2. Secure the drive into the drive bay with the two small silver screws that were included in the box (B). Set the drive bay bracket down inside the chassis (C).



Close the Chassis

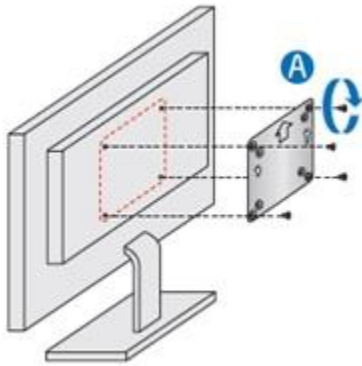
After all components have been installed, close the Intel NUC chassis (using an electric or battery operated screw driver can damage the NUC).



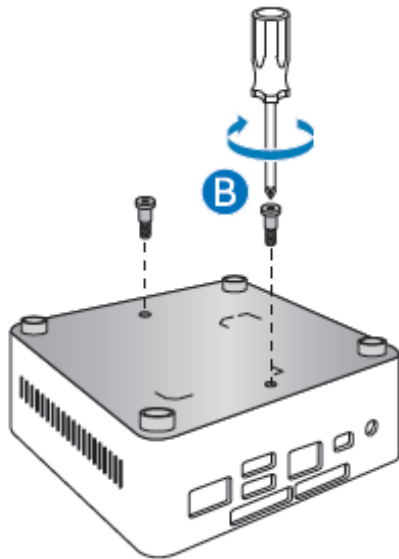
Attach and Use the VESA Bracket (Optional)

Follow these instructions to attach and use the VESA mount bracket:

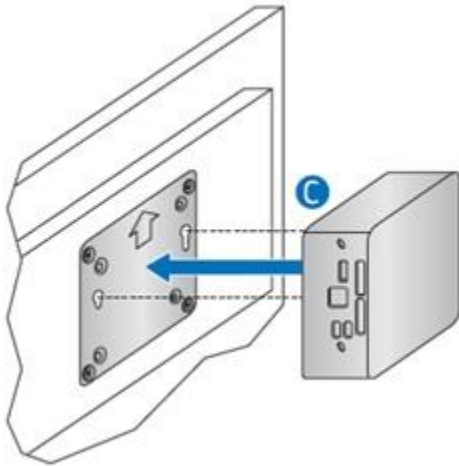
1. Using the four small black screws that were included in the box, attach the VESA bracket to the back of the monitor or TV.



2. Attach the two slightly larger black screws to the bottom chassis cover of the Intel NUC.



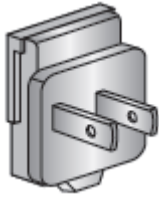
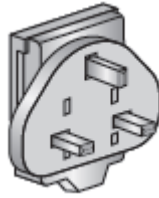
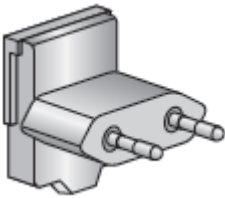
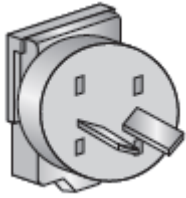
3. Slide the Intel NUC onto the VESA mount bracket.

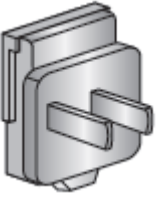
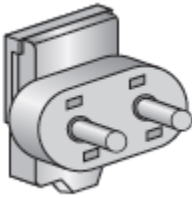
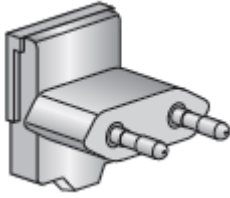
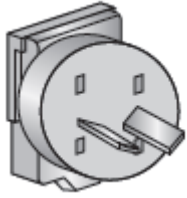


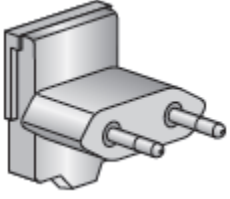
Connect Power

Country-specific power plug attachments are included in the Intel NUC Kit box.

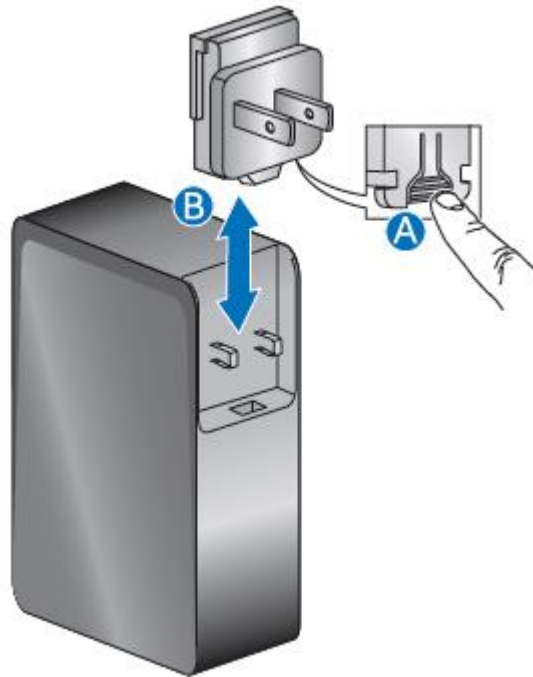
1. Choose the attachment for your region.

Plug				
Code	US	UK	EU	AUS
Country	United States	United Kingdom	European Union	Australia

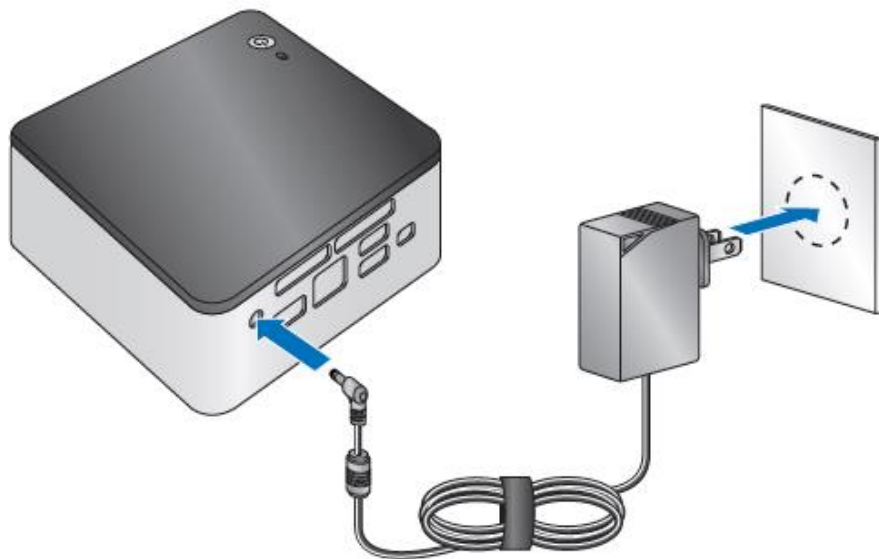
Plug				
Code	CHN	IND	KOR	ARG
Country	China	India	South Korea	Argentina

Plug	
Code	BRA
Country	Brazil

- Slide the attachment (B) onto the power plug, locking it into place (A).



- Connect AC power.



Install an Operating System

Refer to [Supported Operating Systems](#) for a list of Intel-validated Windows* operating systems, as well as versions of Linux that have been reported as compatible by Intel NUC owners.

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.
 - [NUC7i3BNHX1](#)
 - [NUC7i5BNHX1](#)
 - [NUC7i7BNHX1](#)

The following device drivers and software are available.

- Intel® Chipset Device Software
- Intel® HD Graphics
- Intel® Management Engine
- Intel® Wireless
- Intel® Bluetooth
- Intel® Gigabit Ethernet
- Thunderbolt™ Bus (NUC7i5BNH and NUC7i7BNH only)
- Realtek* High Definition Audio
- Realtek* Card Reader
- ITE Tech* Consumer Infrared
- Intel® Rapid Storage Technology
- Intel® Software Guard Extensions
- Thunderbolt™ 3 Controller Firmware
- HDMI Firmware