

Intel® NUC Kit NUC11PAHi7

Intel® NUC Kit NUC11PAHi5

Intel® NUC Kit NUC11PAHi3

Intel® NUC Kit NUC11PAHi70Z

Intel® NUC Kit NUC11PAHi50Z

Intel® NUC Kit NUC11PAHi30Z

[User Guide](#)

April 2022



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Revision History

Date	Revision	Description
January 2021	1.0	Initial release.
April 2022	3.0	Added defeatured NU11PAH[x]Z products

1.0 Introduction

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

- Intel® NUC Kit NUC11PAHi7
- Intel® NUC Kit NUC11PAHi5
- Intel® NUC Kit NUC11PAHi3
- Intel® NUC Kit NUC11PAHi70Z
- Intel® NUC Kit NUC11PAHi50Z
- Intel® NUC Kit NUC11PAHi30Z

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

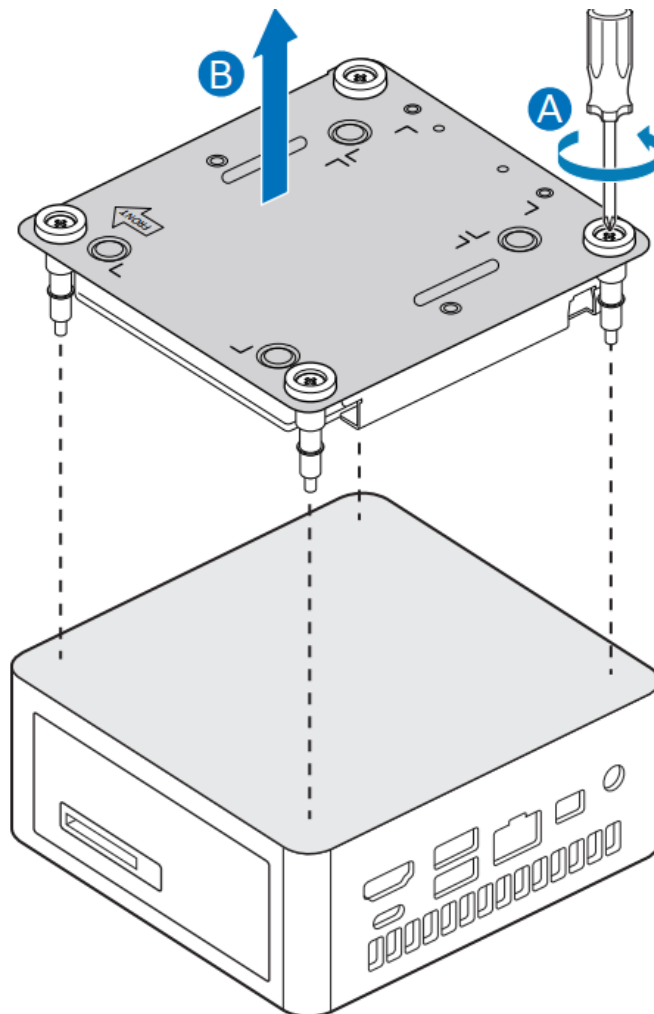
Observe all warnings and cautions that instruct you to refer computer servicing to qualified technical personnel.

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*

Unscrew the four corner screws on the bottom of the chassis and lift the cover.



3.0 *Install and Remove System Memory*

Intel NUC Kits NUC11PAHi7, NUC11PAHi5, NUC11PAHi3, NUC11PAHi70Z, NUC11PAHi50Z, and NUC11PAHi30Z have two 260-pin DDR4 SO-DIMM memory slots

Memory requirements:

- 1.2V low voltage memory
- 3200 MHz SO-DIMMs
- Non-ECC

Find compatible system memory modules at the Intel® Product Compatibility Tool:

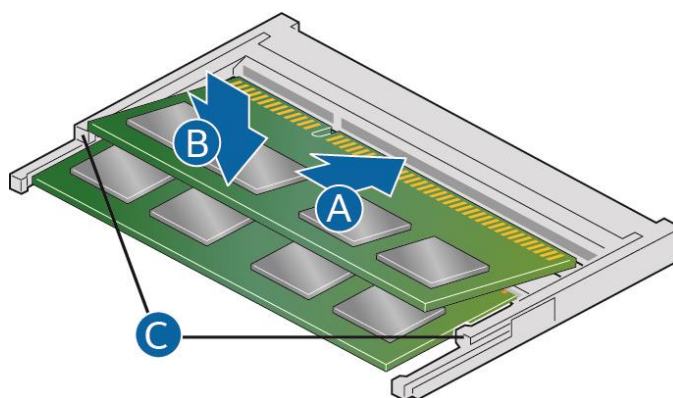
- [NUC11PAHi7](#)
- [NUC11PAHi5](#)
- [NUC11PAHi3](#)
- [NUC11PAHi70Z](#)
- [NUC11PAHi50Z](#)
- [NUC11PAHi30Z](#)

3.1 *Install SO-DIMMs*

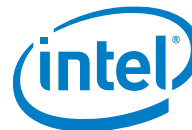
NOTE	If you plan to install only one memory module, install it in the lower memory socket.
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To install the SO-DIMMs, follow these steps:

1. Observe the precautions in "Before You Begin" in Section 1.1.
2. Turn off all peripheral devices connected to the computer. Turn off the computer and disconnect the AC power cord.



3. Align the small notch at the bottom edge of the SO-DIMM with the key in the socket.
4. Insert the bottom edge of the SO-DIMM into the socket.
5. When the SO-DIMM is inserted, push down on the outer edge of the



SO-DIMM until the retaining clips snap into place. Make sure the clips are firmly in place.

3.2 Remove SO-DIMMs

To remove a SO-DIMM, follow these steps:

1. Observe the precautions in "Before You Begin" in Section 1.1.
2. Turn off all peripheral devices connected to the computer. Turn off the computer.
3. Remove the AC power cord from the computer.
4. Remove the computer's cover.
5. Gently spread the retaining clips at each end of the SO-DIMM socket. The SO-DIMM pops out of the socket.
6. Hold the SO-DIMM by the edges, lift it away from the socket, and store it in an anti-static package.
7. Reinstall and reconnect any parts you removed or disconnected to reach the SO-DIMM sockets.
8. Replace the computer's cover and reconnect the AC power cord.

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

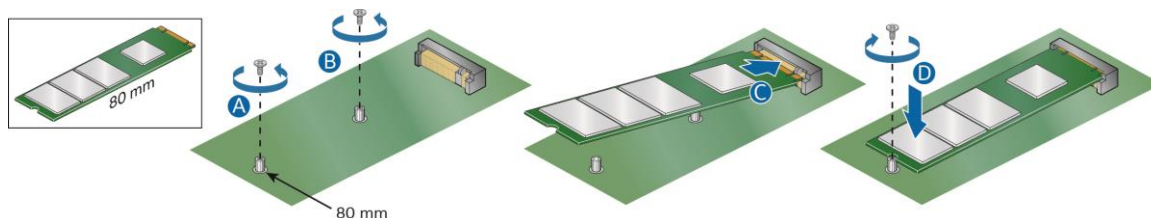
Intel NUC Kits NUC11PAHi7, NUC11PAHi5, NUC11PAHi3, NUC11PAHi70Z, NUC11PAHi50Z, and NUC11PAHi30Z support 80mm and 42mm SSDs.

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

- [NUC11PAHi7](#)
- [NUC11PAHi5](#)
- [NUC11PAHi3](#)
- [NUC11PAHi70Z](#)
- [NUC11PAHi50Z](#)
- [NUC11PAHi30Z](#)

If you're installing an 80mm M.2 SSD:

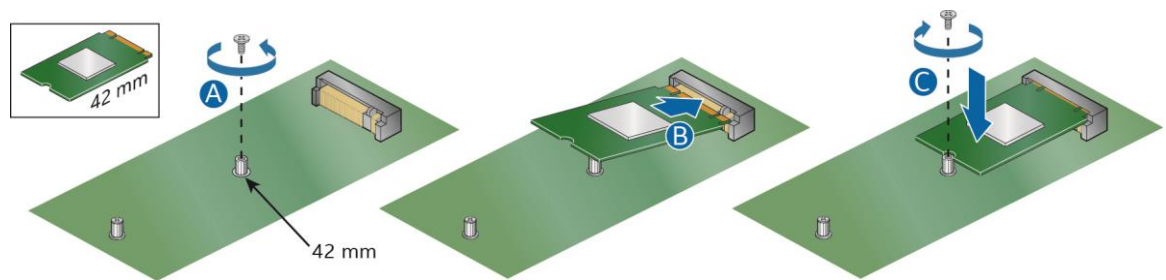
1. Remove the small silver screw from the 80mm metal standoff on the motherboard (A).
2. Align the small notch at the bottom edge of the M.2 card with the key in the connector.
3. Insert the bottom edge of the M.2 card into the connector (B).
4. Secure the card to the standoff with the small silver screw (C).



Intel® Optane™ Memory Module installation and integration instructions are available by this [link](#)

If you're installing a 42mm M.2 SSD:

1. Remove the small silver screw from the metal standoff on the motherboard (A).
2. Move the standoff (B) from the 80mm position to the 42mm position (C).
3. Align the small notch at the bottom edge of the M.2 card with the key in the connector.
4. Insert the bottom edge of the M.2 card into the connector (D).
5. Secure the card to the standoff with the small silver screw (E).



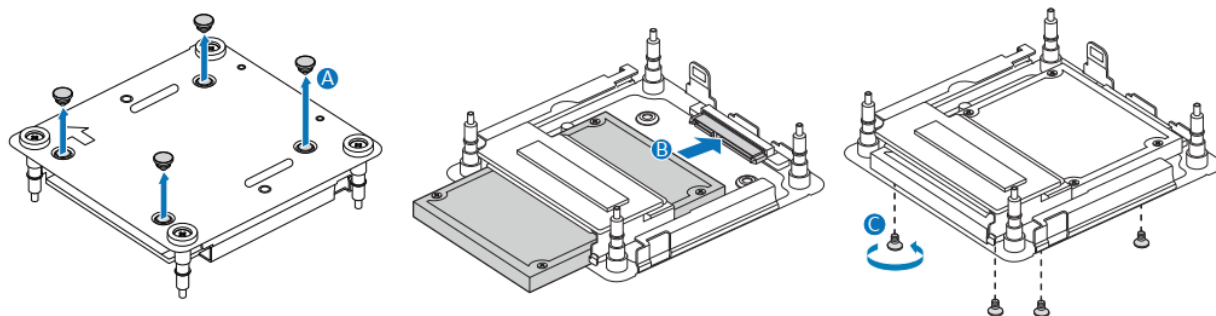
5.0 *Install a 2.5-inch SSD or Hard Drive*

The Intel NUC Kits NUC11PAHi7, NUC11PAHi5, NUC11PAHi3, NUC11PAHi70Z, NUC11PAHi50Z, NUC11PAHi30Z and support an additional 2.5" Solid State Drive (SSD) or Hard Disk Drive (HDD).

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

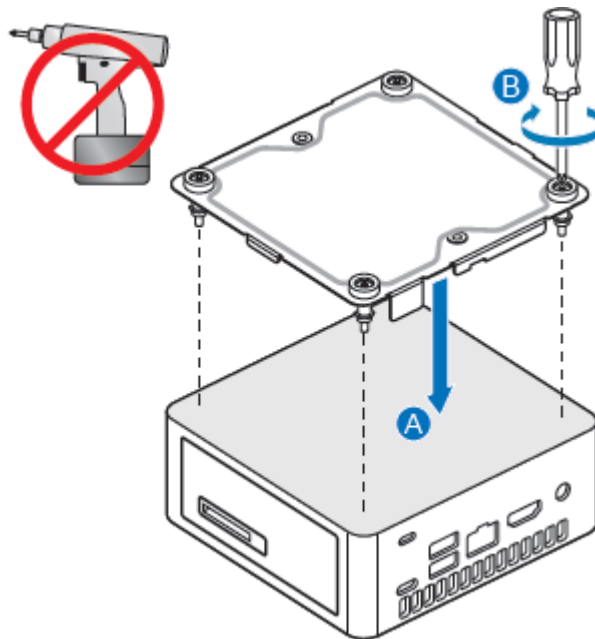
- [NUC11PAHi7](#)
- [NUC11PAHi5](#)
- [NUC11PAHi3](#)
- [NUC11PAHi70Z](#)
- [NUC11PAHi50Z](#)
- [NUC11PAHi30Z](#)

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).



6.0 *Close the Chassis*

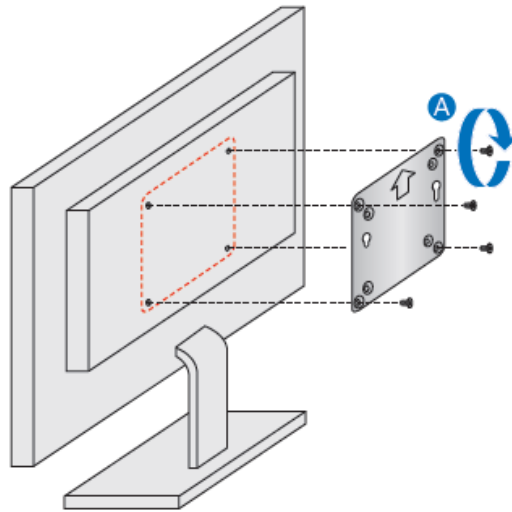
After all components have been installed, close the Intel NUC chassis. Intel recommends this be done by hand with a screwdriver to avoid over-tightening and possibly damaging the screws.



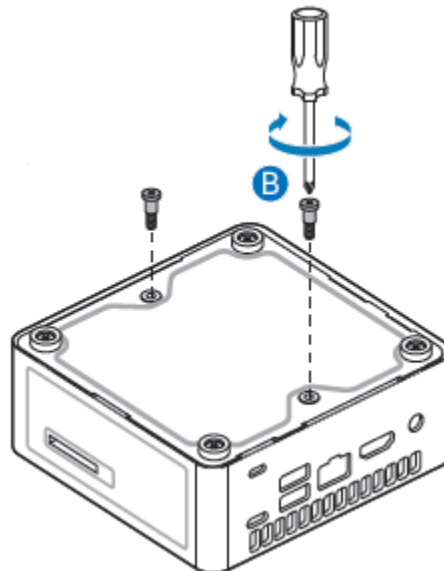
7.0 *Use the VESA Bracket (Optional)*

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

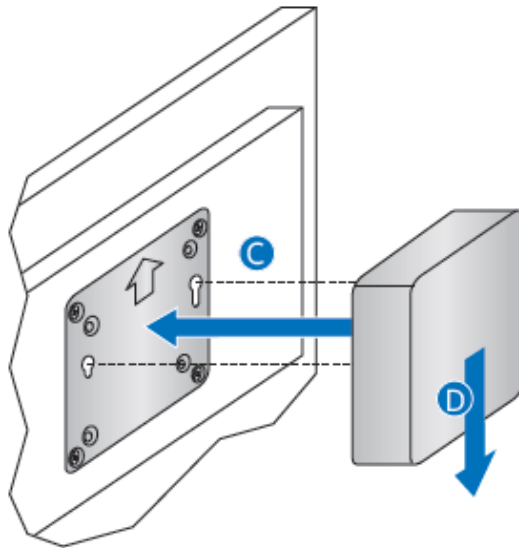
1. Using the four small black screws that were included in the box, attach the VESA bracket to the back of the monitor or TV.



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



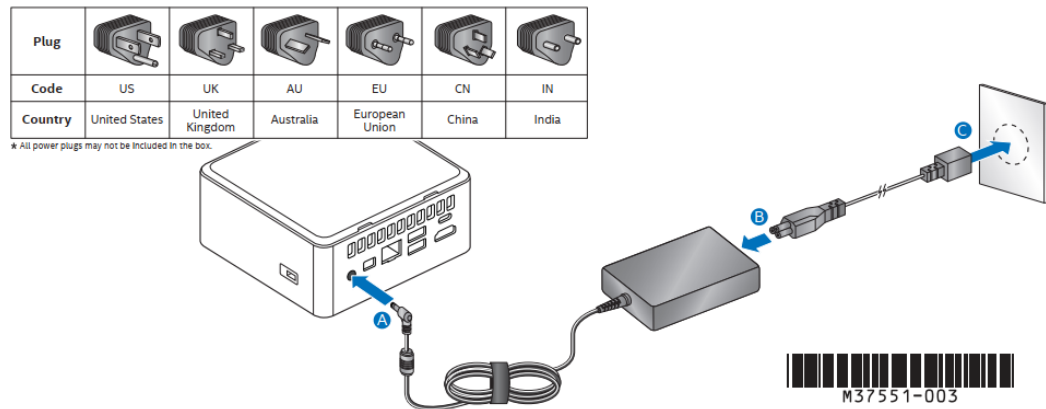
3. Slide the Intel NUC onto the VESA mount bracket.



8.0 Connect Power

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

1. Connect AC power.



Each Intel NUC model includes either a region-specific AC power cord or no AC power cord (only the power adapter).

Product codes	Power cord type
RNUC11PAQi70QA0 RNUC11PAQi50WA0 RNUC11PAQi30WA0 RNUC11PAQi70000 RNUC11PAHi70000 RNUC11PAQi50000 RNUC11PAHi50000 RNUC11PAKi50000 RNUC11PAHi30000 RNUC11PAKi30000 RNUC11PAHi70Z00 RNUC11PAHi50Z00 RNUC11PAHi30Z00	No power cord included. An AC power cord needs to be purchased separately. Power cords are available at many Internet sites for use in multiple countries. The connector on the power adapter is a C5 type connector.



RNUC11PAQi70QA1 RNUC11PAQi50WA1 RNUC11PAQi30WA1 RNUC11PAQi70001 RNUC11PAHi70001 RNUC11PAKi70001 RNUC11PAQi50001 RNUC11PAHi50001 RNUC11PAKi50001 RNUC11PAHi30001 RNUC11PAKi30001 RNUC11PAHi70Z01 RNUC11PAHi50Z01 RNUC11PAHi30Z01	US power cord included.
RNUC11PAQi70QA2 RNUC11PAQi50WA2 RNUC11PAQi30WA2 RNUC11PAQi70002 RNUC11PAHi70002 RNUC11PAKi70002 RNUC11PAQi50002 RNUC11PAHi50002 RNUC11PAKi50002 RNUC11PAHi30002 RNUC11PAKi30002 RNUC11PAHi70Z02 RNUC11PAHi50Z02 RNUC11PAHi30Z02	EU power cord included.
RNUC11PAQi70QA3 RNUC11PAQi50WA3 RNUC11PAQi30WA3 RNUC11PAHi70003 RNUC11PAHi50003 RNUC11PAKi50003 RNUC11PAHi30003 RNUC11PAKi30006	UK power cord included.
RNUC11PAQi70QA4 RNUC11PAQi50WA4	



RNUC11PAQi30WA4 RNUC11PAHi70004 RNUC11PAHi50004 RNUC11PAKi50004 RNUC11PAHi30004 RNUC11PAKi30004	Australia/New Zealand power cord included.
RNUC11PAHi70005 RNUC11PAHi50005 RNUC11PAHi30005	India power cord included.
RNUC11PAQi70QA6 RNUC11PAQi50WA6 RNUC11PAQi30WA6 RNUC11PAHi70006 RNUC11PAHi50006 RNUC11PAKi50006 RNUC11PAHi30006 RNUC11PAKi30006	China power cord included.



9.0 *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.



10.0 *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:
 - [NUC11PAHi7](#)
 - [NUC11PAHi5](#)
 - [NUC11PAHi3](#)
 - [NUC11PAHi70Z](#)
 - [NUC11PAHi50Z](#)
 - [NUC11PAHi30Z](#)

The following device drivers and software are available.

- Intel® Chipset Device Software
- Intel® HD Graphics
- Intel® Management Engine
- Intel® Gigabit Ethernet
- Intel® Wireless
- Intel® Bluetooth
- Intel® USB 3.0 (needed for Windows 7* only)
- Intel® Serial IO
- Realtek* High Definition Audio -> **NUC11PAQ/H/K[x] only, NUC11PAH[x]Z products do not have Realtek* High Definition Audio**
- ITE Tech* Consumer Infrared
- Intel® Rapid Storage Technology
- Intel® Software Guard Extensions