ZOTAC

ZBOX

MAGNUS ONE

USER'S MANUAL

ZOTAC ZBOX
User's Manual



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Every effort has been made to ensure that the contents of this manual are correct and up to date. However, the manufacturer makes no guarantee regarding the accuracy of its contents, and reserves the right to make changes without prior notice.

CAUTION:
Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

Table of Contents

Product Specifications ---- **3**
Safety information ---- **4**
Setting up your system ---- 4
Care during use ---- 4
Welcome ---- **5**
Package contents ---- 5
Getting to know your ZOTAC ZBOX ---- **6**
Front view ---- 6
Rear view ---- 7
Installing Hardware ---- **8**
Installing a graphics card ---- 10
Installing a memory module ---- 12
Installing M.2 SSD and Optane memory modules ---- 14
Installing a hard disk / SSD ---- 17
Setting up your ZOTAC ZBOX ---- **19**
Installing drivers and software ---- **21**
Installing an operating system ---- 21
Installing system drivers ---- 21
Installing the Killer Control Center ---- 23
Using your ZOTAC ZBOX ---- **27**
Configuring a wireless connection ---- 27
Configuring audio output ---- 27
Intel® Optane™ technology ---- **28**
Enabling Intel Optane memory ---- 28
Disabling Intel Optane memory ---- 35

Product Specifications

- **Microprocessor support**
  - Intel Core i7-10700 (8-core, 2.9 GHz, up to 4.8 GHz) for ZBOX ECM73070C/ ZBOX ECM7307LH
  - Intel Core i5-10400 (6-core, 2.9 GHz, up to 4.3 GHz) for ZBOX ECM53060C
- **Chipset**
  - Intel H470
- **Graphics support**
  - NVIDIA GeForce RTX 3070 w/ 8GB GDDR6, 256bit for ZBOX ECM73070C
  - NVIDIA GeForce RTX 3070 LHR w/ 8GB GDDR6, 256bit for ZBOX ECM7307LH
  - NVIDIA GeForce RTX 3060 w/ 12GB GDDR6, 192bit for ZBOX ECM53060C
    - One HDMI 2.1, three DP 1.4a
  - Intel UHD Graphics 630 (Use only when a dedicated graphics card is not installed)
    - One HDMI 1.4
- **Operating systems**
  - Windows 10 64-bit & Windows 11 Ready
- **System Memory support**
  - Two DDR4-2933 SODIMM slots for ZBOX ECM73070C/ ZBOX ECM7307LH
  - Two DDR4-2666 SODIMM slots for ZBOX ECM53060C
  - Up to 64 GB of memory
- **USB Ports**
  - Four USB 3.1 GEN2 10 Gbps
  - Four USB 3.0 5 Gbps (One Type-C and three Type-A)
- **Onboard Serial ATA**
  - SATA 6.0 Gb/s transfer rates
  - Support one 2.5-inch SATA HDD or SSD (max 9.5mm height)
- **Expansion slot**
  - One M.2 PCIe x4/ SATA III SSD slot (22/42, 22/80)
  - One M.2 PCIe x4 SSD/ Optane Memory M10 slot (22/42, 22/80, 22/110)
- **Onboard Dual LAN**
  - 1 x Killer E3000 2.5Gbit LAN (10/100/1000/2500Mbps)
  - 1 x 10/100/1000 Mbps Ethernet
- **WiFi 6/ Bluetooth support**
  - Killer WiFi 802.11 ax

- ❖ Bluetooth 5

❑ **Product Size**

- ❖ 265.5mm x 126mm x 249mm

Safety information

Your ZOTAC ZBOX is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

Setting up your system

- ❖ Read and follow all instructions in the documentation before operating your system.
- ❖ Do not use this product near water or a heat source such as a radiator.
- ❖ Set up the system on a stable surface with the provided stand. Never use the system alone without the stand.
- ❖ Openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- ❖ Use this product in environments with ambient temperatures between 0℃ and 35℃.

Care during use

- ❖ Do not walk on the power cord or allow anything to rest on it.
- ❖ Do not spill water or any other liquids on your system.
- ❖ When the system is turned off, a small amount of electrical current still flows. Always unplug all power, modem, and network cables from the power outlets before cleaning the system.
- ❖ If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - ➢ The power cord or plug is damaged.
  - ➢ Liquid has been spilled into the system.
  - ➢ The system does not function properly even if you follow the operating instructions.
  - ➢ The system was dropped or the cabinet is damaged.
  - ➢ The system performance changes.

Welcome

Congratulations on your purchase of the ZOTAC ZBOX. The following illustration displays the package contents of your new ZOTAC ZBOX. If any of the below items are damaged or missing, contact your retailer.

Package contents

- 1 x ZOTAC ZBOX
- 1 x Power Cord
- 2 x Nylon Cable Tie (optional)
- 2 x Antenna
- 1 x USB flash drive with Windows drivers
- 1 x Quick Start Guide & Warranty Card



Getting to know your ZOTAC ZBOX
Front view



Refer to the diagram below to identify the components on this side of the system

1. Power switch
The power switch allows powering ON and OFF the system.

2. Combo Headphone/Microphone jack (3.5mm)
The combo headphone/microphone jack (3.5mm) is used to connect the system's audio out signal to amplified speakers, 3-pole headphones or 4-pole CTIA headphones.
Note: The combo headphone/microphone jack does not support the traditional microphone.

3. Memory card slot
The Memory card slot is compatible with SD/SDHC/SDXC cards used in devices like digital cameras, MP3 players, mobile phones and PDAs.

4. Power LED
The Power LED is always ON when power is on.

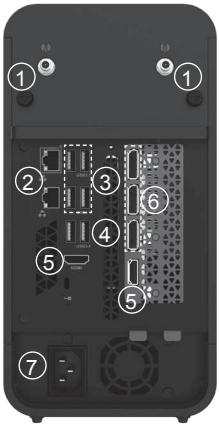
5. WiFi LED
The WiFi LED is always ON when WiFi was active.

6. Hard disk LED
The hard disk LED blinks when data is being written into or read from the hard disk drive.

7. USB 3.0 ports
The USB 3.0 port supports the SuperSpeed USB 3.0 devices and is backwards compatible with USB 2.0/1.1 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

8. USB 3.0 Type-C port
The USB 3.0 type-C port supports the SuperSpeed USB 3.0 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

Rear view



Refer to the diagram below to identify the components on this side of the system.

1. WiFi antenna connectors

The WiFi antenna connector supports WiFi antenna module.

2. LAN ports

The eight-pin RJ-45 LAN ports support standard Ethernet cables for connection to a local network. The LAN port marked with K is for Killer Ethernet.

3. USB 3.1 port

The USB 3.1 port supports the SuperSpeed USB 3.1 devices and is backwards compatible with USB 3.0/2.0/1.1 devices. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

4. USB 3.0 ports

The USB 3.0 port supports the SuperSpeed USB 3.0 devices and is backwards compatible with USB 2.0/1.1 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

5. HDMI ports

The HDMI (High Definition Multimedia Interface) port supports a UHD device such as an LCD TV or monitor to allow viewing on a larger external display.

6. DisplayPorts

DisplayPort supports both external (box-to-box) and internal (laptop LCD panel) display connections.

7. Power input (AC 100-240V, 50-60Hz)

Connected with power cord to mains for AC input.

Installing Hardware

Before installing hardware, please follow the instructions below to remove the cover of your ZOTAC ZBOX.

1. Place the ZOTAC ZBOX upright on a flat surface.
2. Locate the two thumb screws and remove.





3. Press down on the arrow of the top cover and slide and remove the top cover off the ZOTAC ZBOX in the direction of the arrow.







4. Lift and remove the two side covers.







Installing a graphics card (optional)

1. Remove the screw from the PCB bracket. (tool required, not included)



2. Connect the power cables to the graphics card.



*Graphics card compatibility - Power: up to 220W, Width: dual-slot, Length: 230mm / 9.06in

3. Insert the graphics card into the available PCIE slot.





4. Bind the cables to the small bracket with a nylon cable tie. (optional)





5. Install the screw to secure the graphics card.

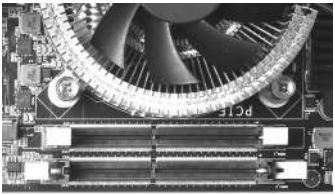


Installing a memory module

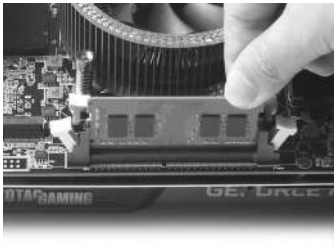
1. Lay the ZOTAC ZBOX on a flat surface with the right side upwards.



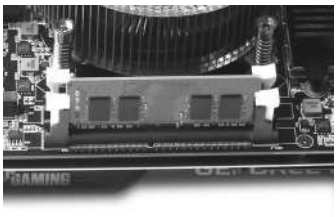
2. Gently push down on the memory retainer clips to the open position.



3. Insert a SO-DIMM memory module into the slot.



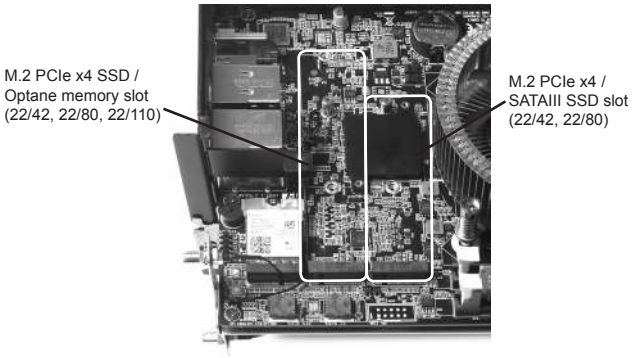
4. Gently push the SO-DIMM memory module down into the slot until the retainer clips lock into place.



Note: This ZOTAC ZBOX accomodates two DDR4 SO-DIMM memory modules. You must install at least one module for the system to function.

Installing M.2 SSD and Optane memory modules

There are two M.2 slots to support PCIe X4, SATA III SSD and Optance memory accordingly.



This is example to install a M.2 PCIe x4 / SATA SSD module, similar steps for installing 2nd PCIe x4 SSD or Optane memory module into another slot.

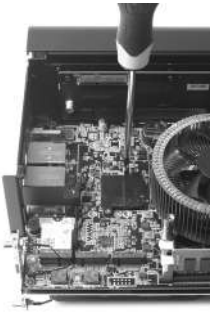
1. Remove the screw securing the hard disk bracket.



2. Remove the hard disk bracket.



3. Locate the M.2 PCIe x4 / SATA SSD slot and remove the screw from the screw bolt. (tool required, not included)



4. Attach the screw to the M.2 PCIe x4 / SATA SSD module.



5. Insert the M.2 PCIe x4 / SATA SSD module into the slot at a 45 degree angle.



6. Gently press down on the M.2 PCIe x4 / SATA SSD module, and install the screw.

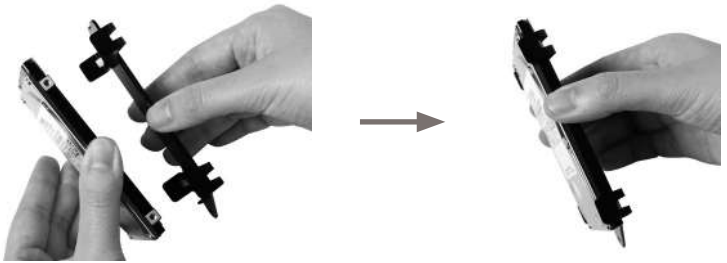


Installing a hard disk / SSD

1. Locate the 2.5-inch SATA hard disk / SSD and the hard disk bracket.



2. Install the hard disk / SSD to the hard disk bracket.



3. Insert the hard disk bracket into the SATA slot.



4. Reinstall the thumb screw.



Setting up your ZOTAC ZBOX

You need to connect peripherals before using your ZOTAC ZBOX.



1. Connecting a WiFi antenna module

Connect a BT/WiFi antenna module to the BT/WiFi antenna connector.

2. Connecting to a network device

Connect one end of a network cable to the LAN port on the system rear panel and the other End to a hub or switch. The LAN port marked with K is for Killer Ethernet.

3. Connecting to USB 3.1 devices

Connect USB 3.1 devices such as external hard disk drives, SSDs and flash drives to the USB 3.1 port on the system rear panel.

4. Connecting to USB 3.0 devices

Connect USB 3.0 devices such as external hard drives, SSDs and flash drives to the USB 3.0 port on the system rear panel.

5. Connecting to HDMI displays

Connect one end of an HDMI cable to the HDMI port on the system rear panel and the other end to a HDMI-compatible display such as an HDTV or monitor.

6. Connecting to DisplayPort displays

Connect the DisplayPort connectors to the DP port of the monitor or display.

7. Turning on the system

Connect the supplied power cord to the Power input on the system rear panel and then press the power switch on the front panel to turn on the system.

Installing drivers and software

Installing an operating system

Depending on the ZOTAC ZBOX model, the system may not ship with an operating system pre-installed. The user must install the operating system before the ZOTAC ZBOX can be used. The following operating systems are supported:

- Windows 10 64-bit & Windows 11 Ready

Follow the instructions below to install an operating system:

1. Attach an external DVD drive (not included) to an available USB port.
2. Insert the operating system installation disk (not included) into the DVD drive.
3. Wait for the ZOTAC ZBOX to boot from the disk.
4. Follow the onscreen directions to install the operating system.
5. Install system drivers to gain full functionality of the ZOTAC ZBOX hardware and features.

Installing system drivers

Before you can use the full features of the ZOTAC ZBOX, the system drivers must be installed. The following types of operating systems are supported by the ZOTAC ZBOX driver USB flash drive:

- Windows 10 64-bit & Windows 11 Ready

Follow the instructions below to install the system drivers:

1. Insert the ZOTAC ZBOX driver USB flash drive. If autorun is enabled, the driver installation main menu will show up automatically. If autorun is disabled, you may click the file Launch.EXE to bring up the driver installation main menu.
2. The following drivers are available on the USB flash drive:
   - Intel Chipset Driver
   - HDA Sound Driver
   - Nvidia Graphics Driver



- Intel Graphics Driver
- Realtek Ethernet PCI-E Driver
- Killer Network Driver
- Bluetooth Driver
- Intel Management Engine
- CardReader Driver

☞ Each driver must be installed individually to ensure proper operation of the ZOTAC ZBOX.

3. Select the driver you want to install. The driver installer should launch.
4. Follow the onscreen instructions to install the drivers.
5. Restart the system.

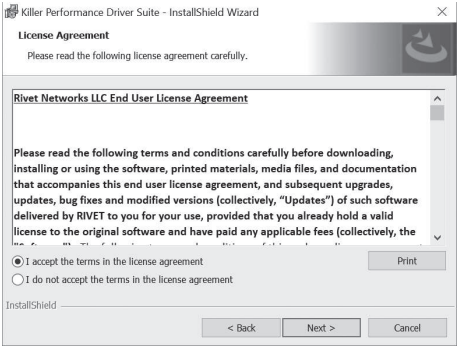
Installing the Killer Control Center

Before you can use the full feature of Killer LAN, please follow the instructions below to install the Killer Control Center.

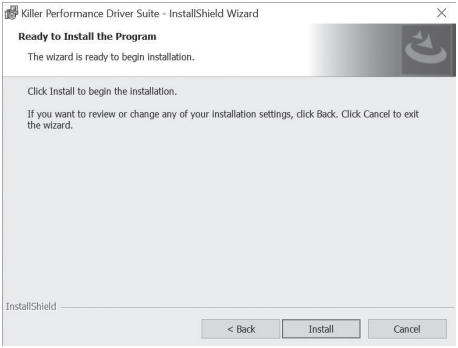
1. Run Killer Wireless Network Driver, click “Next” when the following dialog box displays.



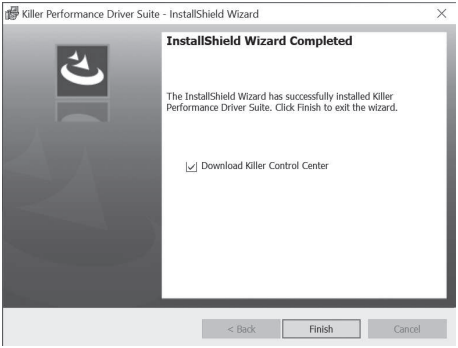
2. Accept the License agreement.



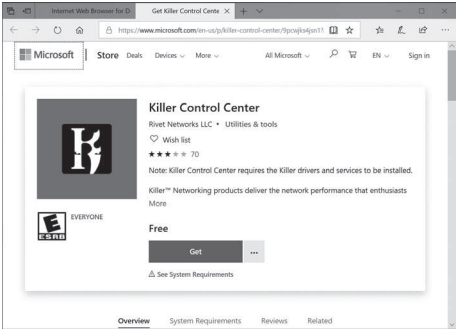
3. Click “Install” to begin the installation. (Please make sure that the network is connected before the installation)



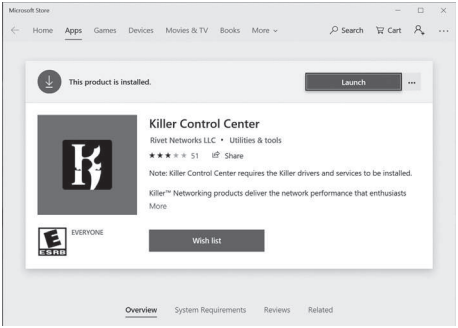
4. Check √ before “Download Killer Control Center”, and click “Finish”.



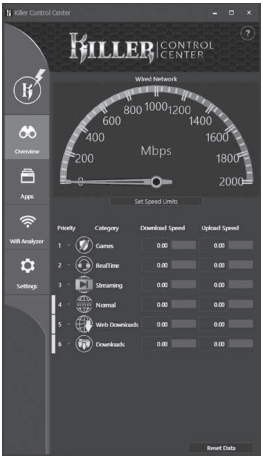
5. Click “Get” to download the Killer Control Center.



6. When the installation is complete, click “Launch” to run the Killer Control Center.



7. Killer Control Center displays as below.



Using your ZOTAC ZBOX

Configuring a wireless connection



Please follow the instructions below to connect to a wireless network:

1. Double-click the wireless network icon (pic) in the notification area.
2. Select the wireless network you want to connect to from the list and click Connect.
3. After connection is established, you will see “Connected.”

   Note 1: For security concerns, Do NOT connect to an unsecured network, otherwise, the transmitted information without encryption might be visible to others.

   Note 2: Enter the network security key if necessary.

Configuring audio output

Follow the steps below to enable audio output when connecting the ZOTAC ZBOX to a TV or receiver via DP/HDMI adapter.

1. Access the Sound settings via the system Control Panel.
2. Under Playback devices, click the display device that corresponds with your audio compatible display.
3. Click the “Set Default” button in the lower right hand corner.
4. Click “OK” to exit the setup.



Intel® Optane™ technology

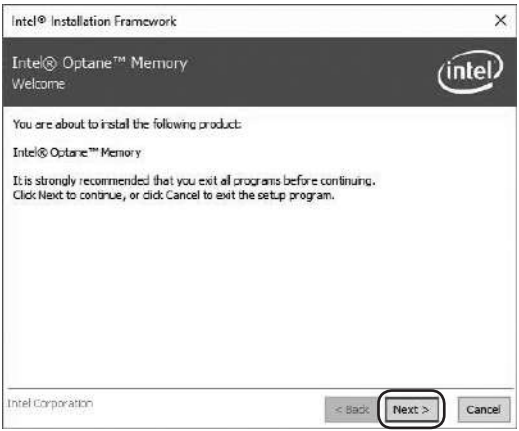
Intel Optane is a new ultra-high-speed memory technology with 3D XPoint™ memory media, compatible with NVMe storage protocol.

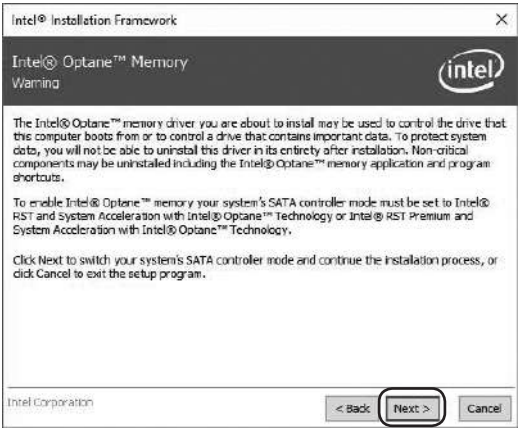
The program SetupOptaneMemory.exe is included in the driver DVD and USB flash drive (X:\OptaneMemory\SetupOptaneMemory.exe).

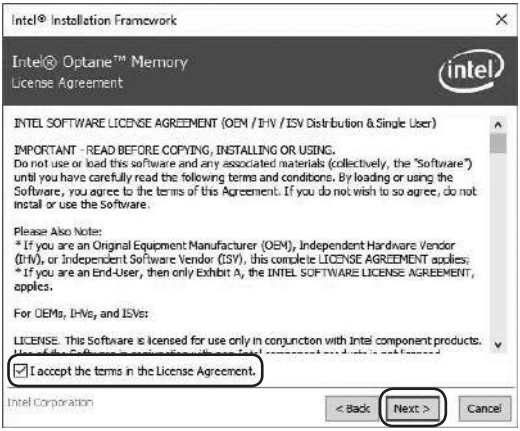
Enabling Intel Optane memory

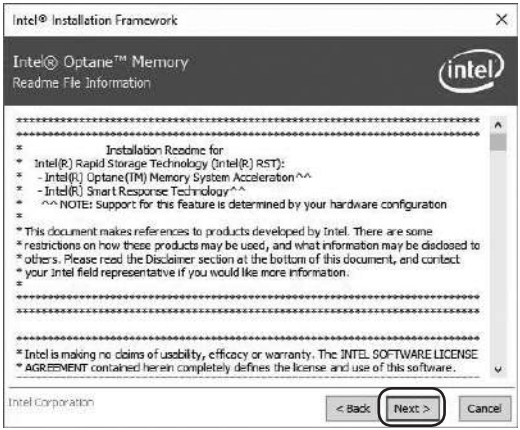
Please follow the recommended procedure to enable Optane memory, as listed below. (X: your driver DVD / USB flash drive letter)

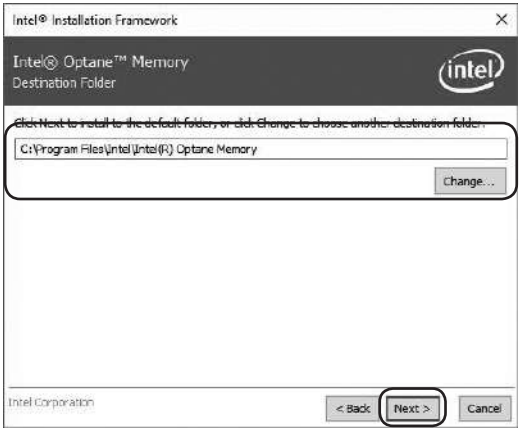
1. Locate and open the file OptaneMemory in the driver DVD / USB flash drive, double-click SetupOptaneMemory.exe to run.
2. Follow the pictures below to complete the installation.

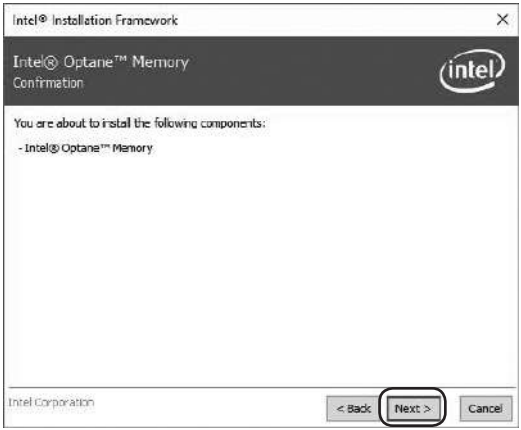


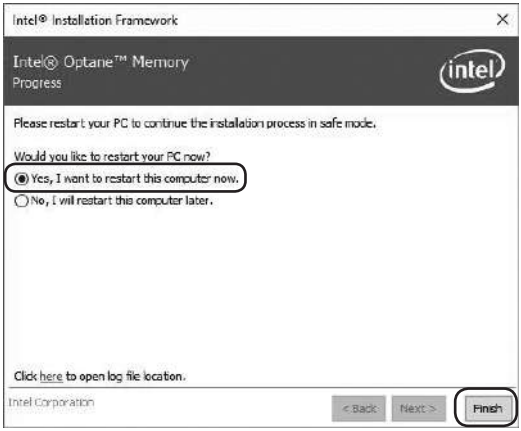

Intel® Installation Framework
Intel® Optane™ Memory
Warning
The Intel® Optane™ memory driver you are about to install may be used to control the drive that this computer boots from or to control a drive that contains important data. To protect system data, you will not be able to uninstall this driver in its entirety after installation. Non-critical components may be uninstalled including the Intel® Optane™ memory application and program shortcuts.
To enable Intel® Optane™ memory your system's SATA controller mode must be set to Intel® RST and System Acceleration with Intel® Optane™ Technology or Intel® RST Premium and System Acceleration with Intel® Optane™ Technology.
Click Next to switch your system's SATA controller mode and continue the installation process, or click Cancel to exit the setup program.
Intel Corporation
< Back
Next >
Cancel


Intel® Installation Framework
Intel® Optane™ Memory
License Agreement
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
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For OEMs, IHVs, and ISVs:
LICENSE. This Software is licensed for use only in conjunction with Intel component products.
I accept the terms in the License Agreement.
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Next >
Cancel

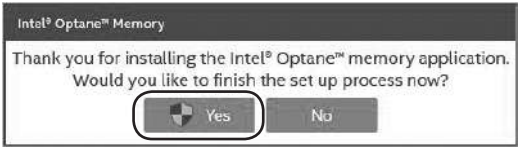

Intel® Installation Framework
Intel® Optane™ Memory
Readme File Information
Installation Readme for
Intel(R) Rapid Storage Technology (Intel(R) RST):
- Intel(R) Optane(TM) Memory System Acceleration^^
- Intel(R) Smart Response Technology^^
^^ NOTE: Support for this feature is determined by your hardware configuration
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< Back
Next >
Cancel


Intel® Installation Framework
Intel® Optane™ Memory
Destination Folder
C:\Program Files\Intel\Intel(R) Optane Memory
Change...
Intel Corporation
< Back
Next >
Cancel

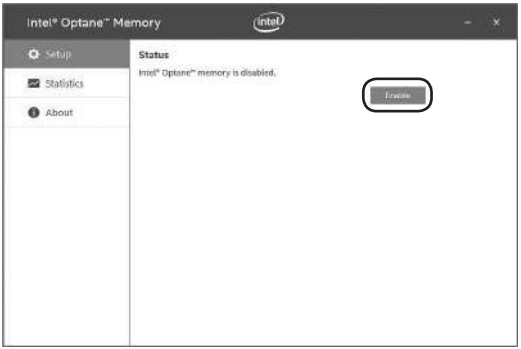

Intel® Installation Framework
Intel® Optane™ Memory
Confirmation
You are about to install the following components:
- Intel® Optane™ Memory
Intel Corporation
< Back
Next >
Cancel

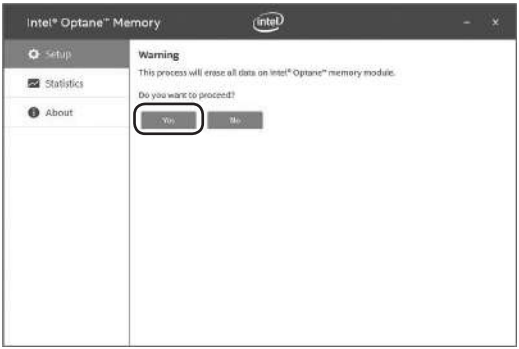

Intel® Installation Framework
Intel® Optane™ Memory
Progress
Please restart your PC to continue the installation process in safe mode.
Would you like to restart your PC now?
Yes, I want to restart this computer now.
No, I will restart this computer later.
Click here to open log file location.
Intel Corporation
< Back
Next >
Finish

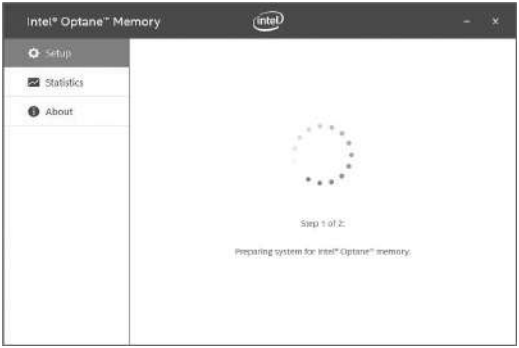
3. Restart the system, the following dialog box will display. Click “Yes”.



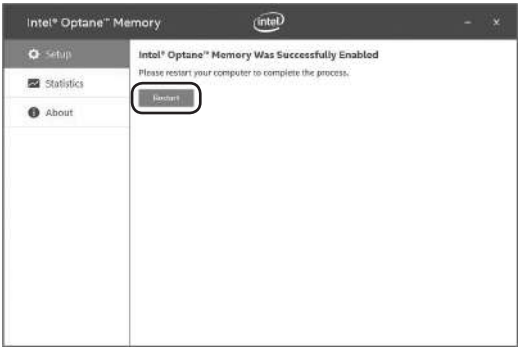
4. When the Intel Optane Memory interface displays, click “Enable”.



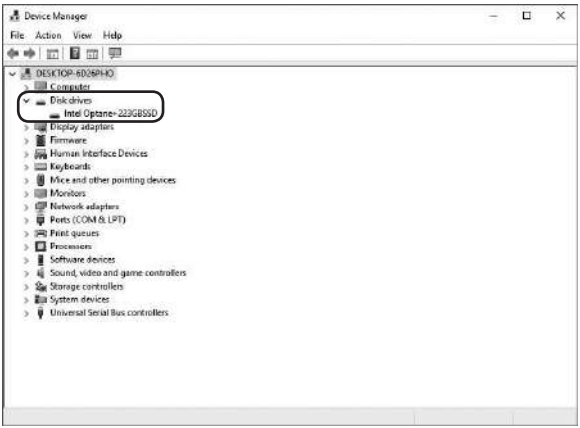

Intel® Optane™ Memory
Setup
Statistics
About
Warning
This process will erase all data on Intel® Optane™ memory module.
Do you want to proceed?
Yes
No


Intel® Optane™ Memory
Setup
Statistics
About
Step 1 of 2:
Preparing system for Intel® Optane™ memory.

5. Click “Restart” to complete enabling the Optane Memory.



6. When the Optane Memory is successfully enabled, the created Intel Optane information will show in Device Manager > Disk drives.

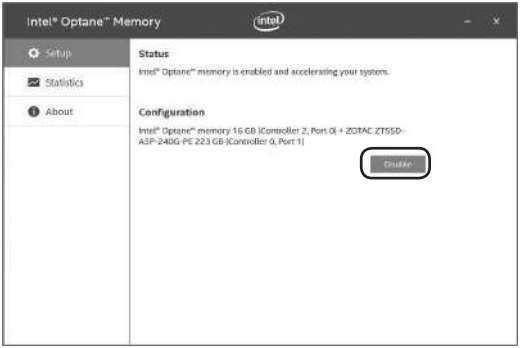


Disabling Intel Optane memory

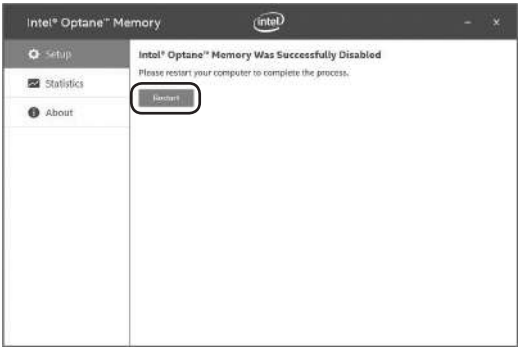
1. Double-click the Intel icon in the lower right corner of the desktop.



2. When the Intel Optane Memory interface displays, click “Disable”.



3. Click “Restart” to complete disabling the Optane Memory.



4. When the Optane Memory is successfully disabled, the disabled Intel Optane information will show in Device Manager > Disk drives.



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