



Predator P09-900_RGB **User's Guide**

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Desktop Computer Covers:

Tower models

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Table of Contents

1. UPGRADING YOUR COMPUTER.....	5	Graphic board	18
Installation precautions	5	Removing the Graphic board	18
ESD precautions	5	Installing the Graphic board	21
Required tools.....	5	M.2 SSD module	23
Pre-installation instructions	6	Removing the M.2 SSD module.....	23
Post-installation instructions	6	Installing the M.2 SSD module	25
System Upgrade	7	ODD drives.....	27
Removing the left side system cover....	7	Open ODD door.	27
Installing the left side system cover.....	8	2 PREDATORSENSE	29
Removing the Right side system cover	9	PredatorSense features	29
Installing the Right side system cover	10		
Hard drives	11		
Removing the 3.5-inch hard drives	11		
Installing the 3.5-inch hard drives	13		
Memory.....	15		
Memory configuration guidelines	15		
Removing a memory module.....	16		
Installing a memory module.....	17		

Upgrading your Computer

In this section, you will find:

- Instructions on how to replace a hardware component

1. UPGRADING YOUR COMPUTER

Installation precautions

Before you install any computer component, we recommend that you read the following sections. These sections contain important ESD precautions along with pre-installation and post-installation instructions.

ESD precautions

Electrostatic discharge (ESD) can damage your processor, disk drives, expansion boards, and other components.

Always observe the following precautions before you install a computer component:

1. Do not remove a component from its protective packaging until you are ready to install it.
2. Wear a wrist grounding strap and attach it to a metal part of the computer before handling components. If a wrist strap is not available, maintain contact with the computer throughout any procedure requiring ESD protection.

Required tools

In performing the component replacement process, you will need the following tools:

- Philips screwdriver
- Hex screwdriver
- Flat screwdriver
- Scissors



Note

The screws for the different components vary in size. During the disassembly process, group the screws with their corresponding components to avoid mismatches when putting back the components.

Pre-installation instructions

Always observe the following before you install any component:

1. Make sure that the ODD and card reader slot is empty.
2. Turn off the power to the computer and all peripherals.
3. Unplug the power cord from the computer.
4. Unplug the network cable and all connected peripheral devices from the computer.
5. Place the computer on a flat, steady surface.
6. Open your computer according to the instructions on Removing the left side system cover on page 7 and Removing the right side system cover on page 9.
7. See the following sections for specific instructions on the component you wish to install.



Warning

Not turning off the computer properly before you start installing the components may cause serious damage. Do not attempt the procedures described in the following sections unless you are a qualified service technician.

Post-installation instructions

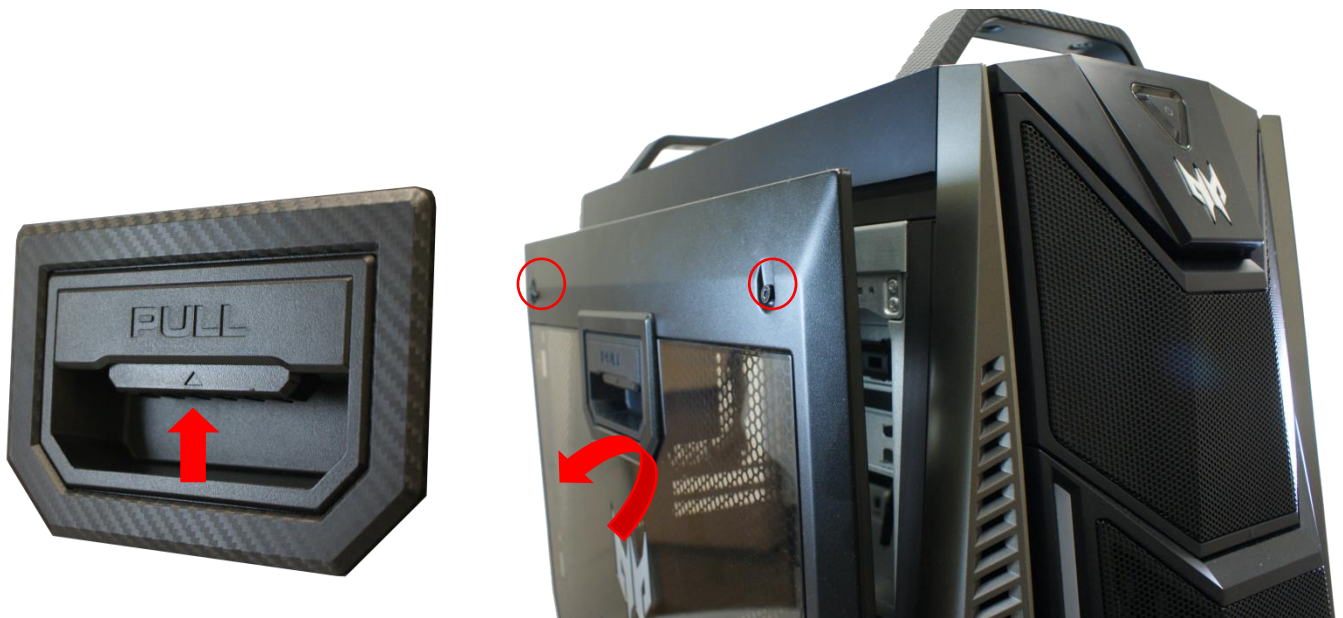
Observe the following after installing a computer component:

1. See to it that the components are installed according to the step-by-step instructions in their respective sections.
2. Replace any expansion boards or peripherals that you removed earlier.
3. Replace the system covers. See Installing the left side system cover on page 8 and Installing the right side system cover on page 10.
4. Connect the necessary cables.
5. Turn on your computer.

System Upgrade

Removing the left side system cover

1. Before you proceed, make sure that you have turned off your computer and all peripherals connected to it. Read the Pre- installation instructions on page 6.
2. Remove the two screws that secure the system cover to the computer.
3. Slide the cover toward the back of the computer and pull away from the side of the computer.



4. Set the cover aside for re-installation later.

Installing the left side system cover

1. Align the cover to the sides of the computer and slide the cover toward the front of the computer.
2. Secure the cover with two screws.



3. Observe the Post-installation instructions on page 6.

Removing the Right side system cover

1. Before you proceed, make sure that you have turned off your computer and all peripherals connected to it. Read the Pre- installation instructions on page 6.
2. Remove the two screws that secure the system cover to the computer.
3. Slide the cover toward the back of the computer and pull away from the side of the computer.



4. Set the cover aside for re-installation later.

Installing the Right side system cover

1. Align the cover to the sides of the computer and slide the cover toward the front of the computer.
2. Secure the cover with two screws.



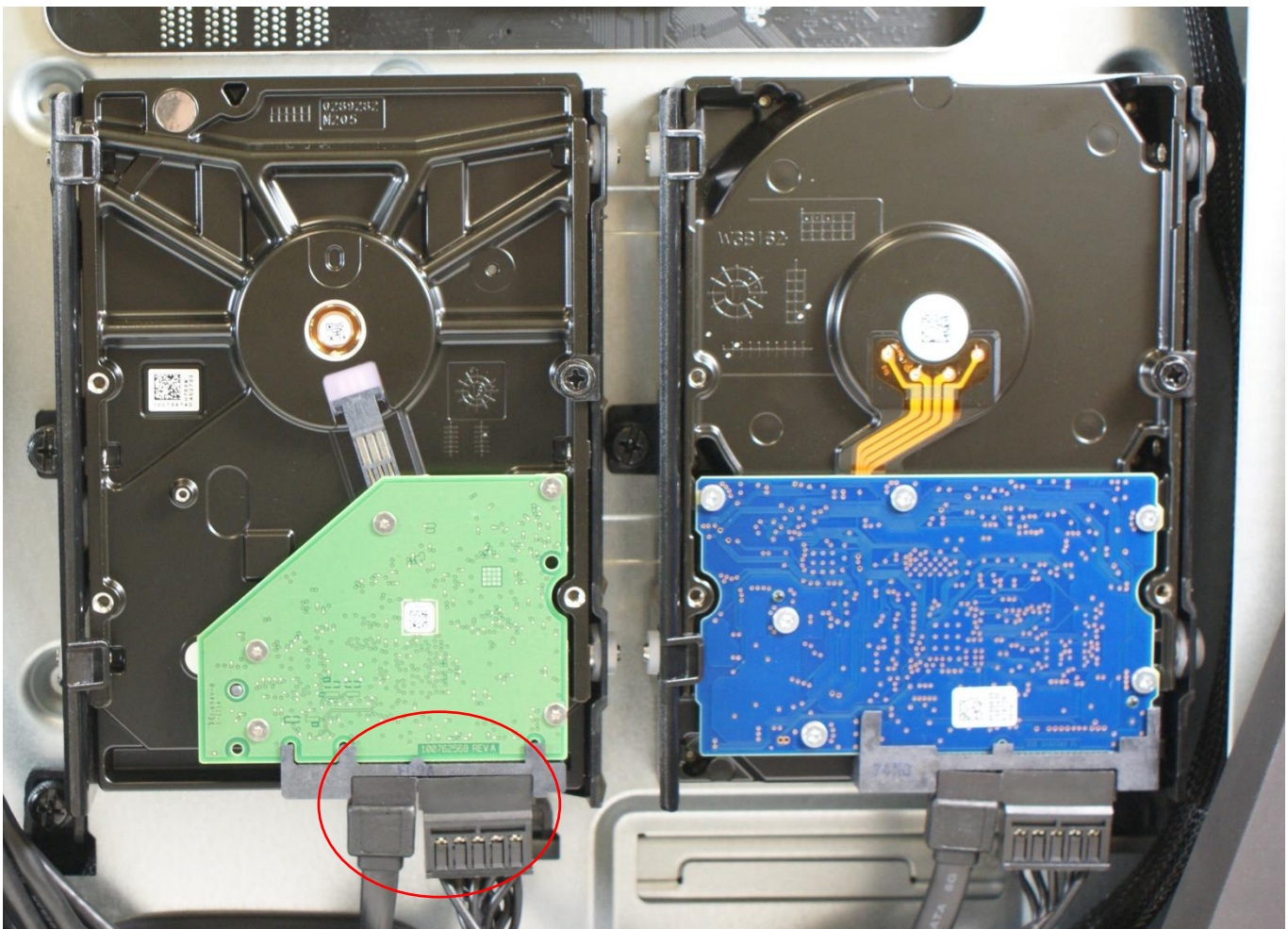
3. Observe the Post-installation instructions on page 6.

Hard drives

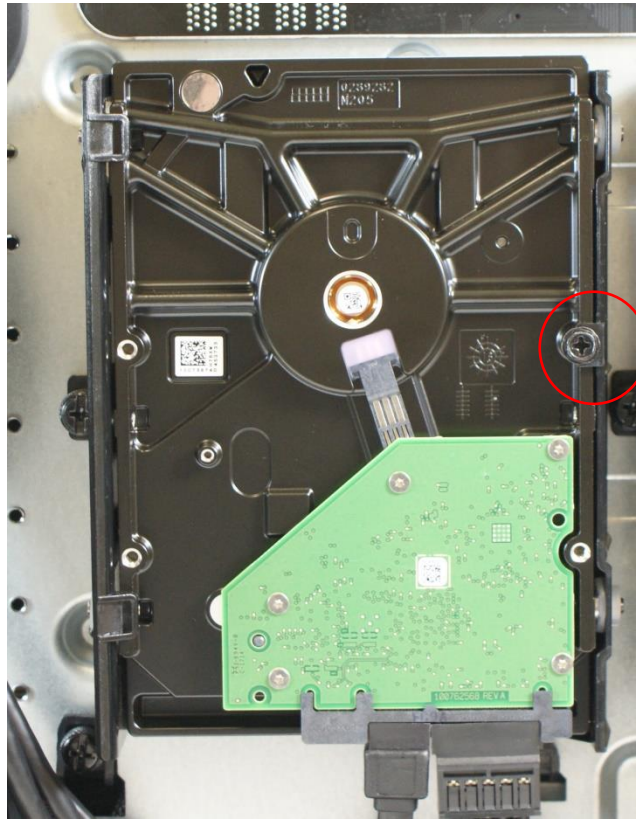
The computer supports installation of one 3.5-inch SATA hard drives in the internal HDD cage.

Removing the 3.5-inch hard drives

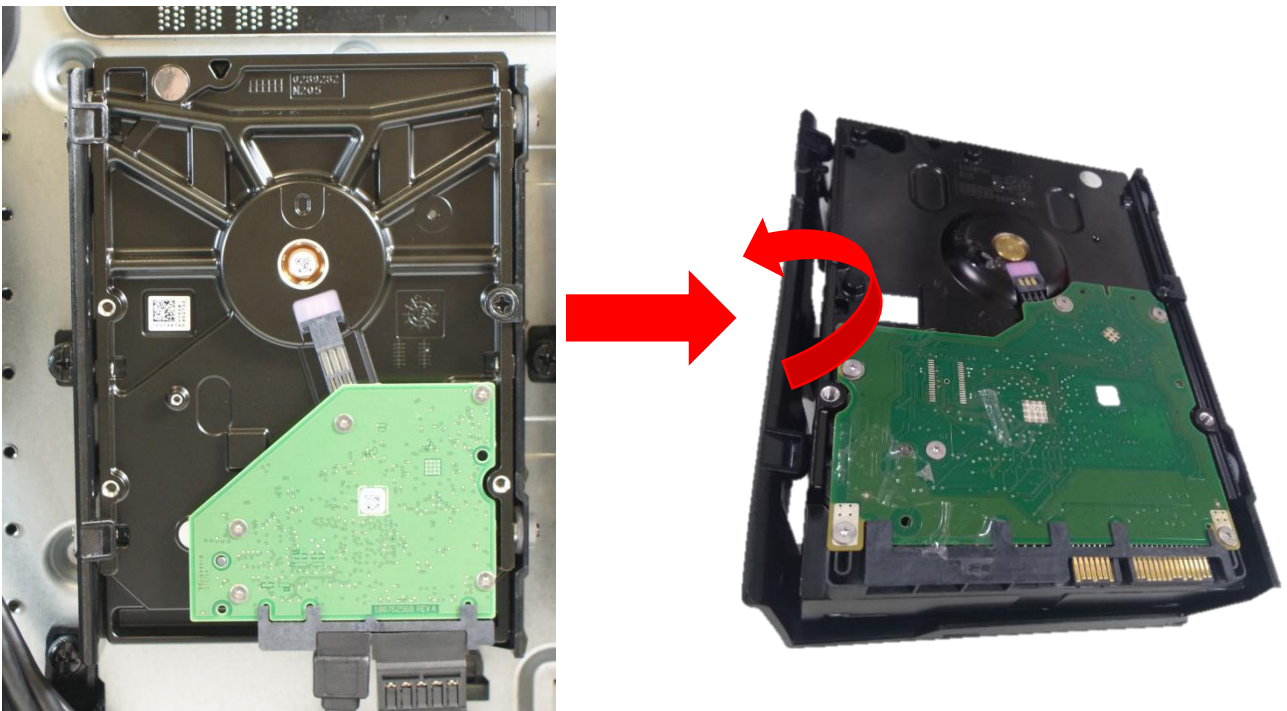
1. Perform Pre-installation instructions on page 6.
2. Disconnect the power and data cables from the hard drives.



3. Remove the one screws that secure the hard drives to the bracket

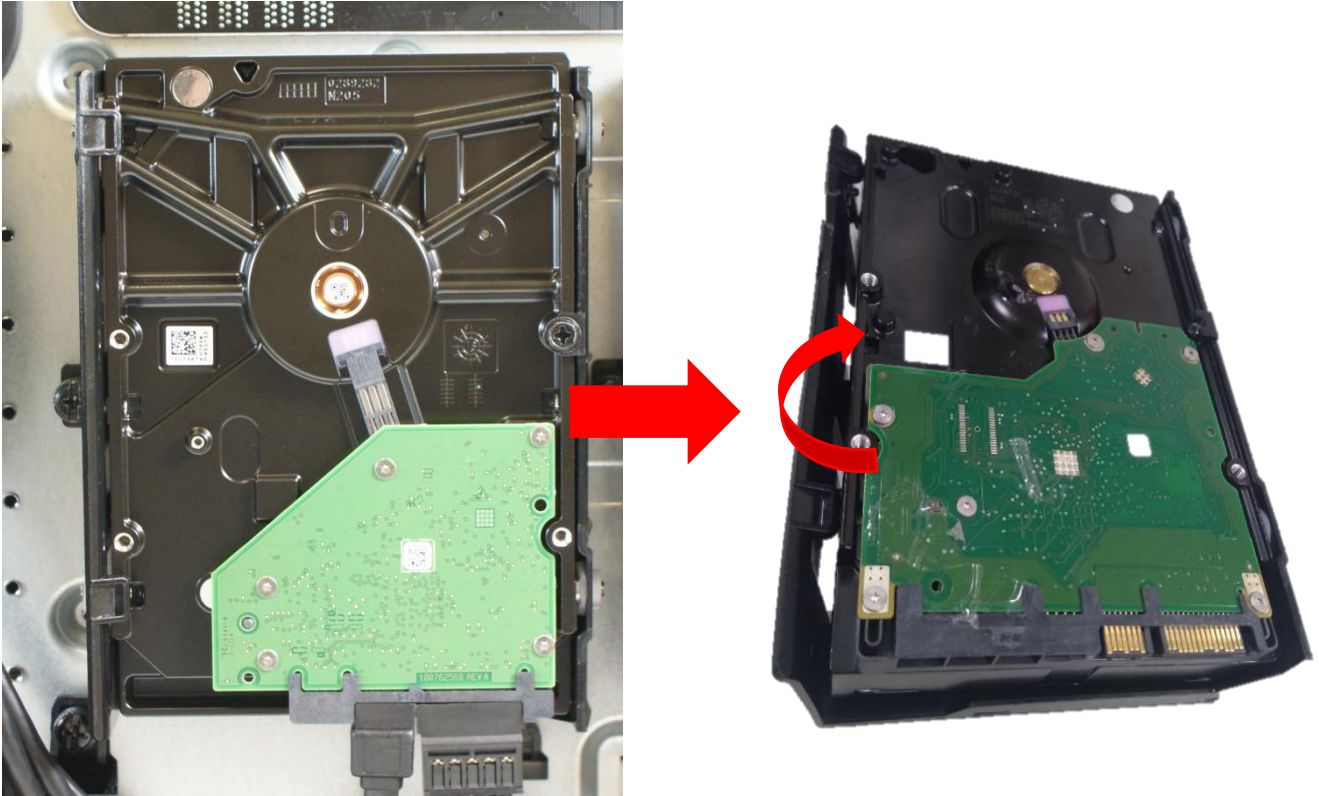


4. Remove the hard drives from the bracket.

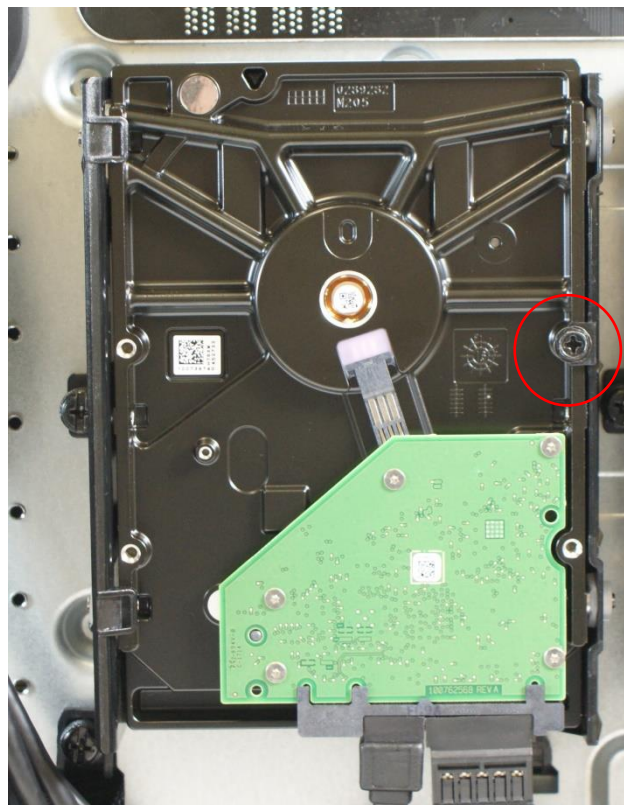


Installing the 3.5-inch hard drives

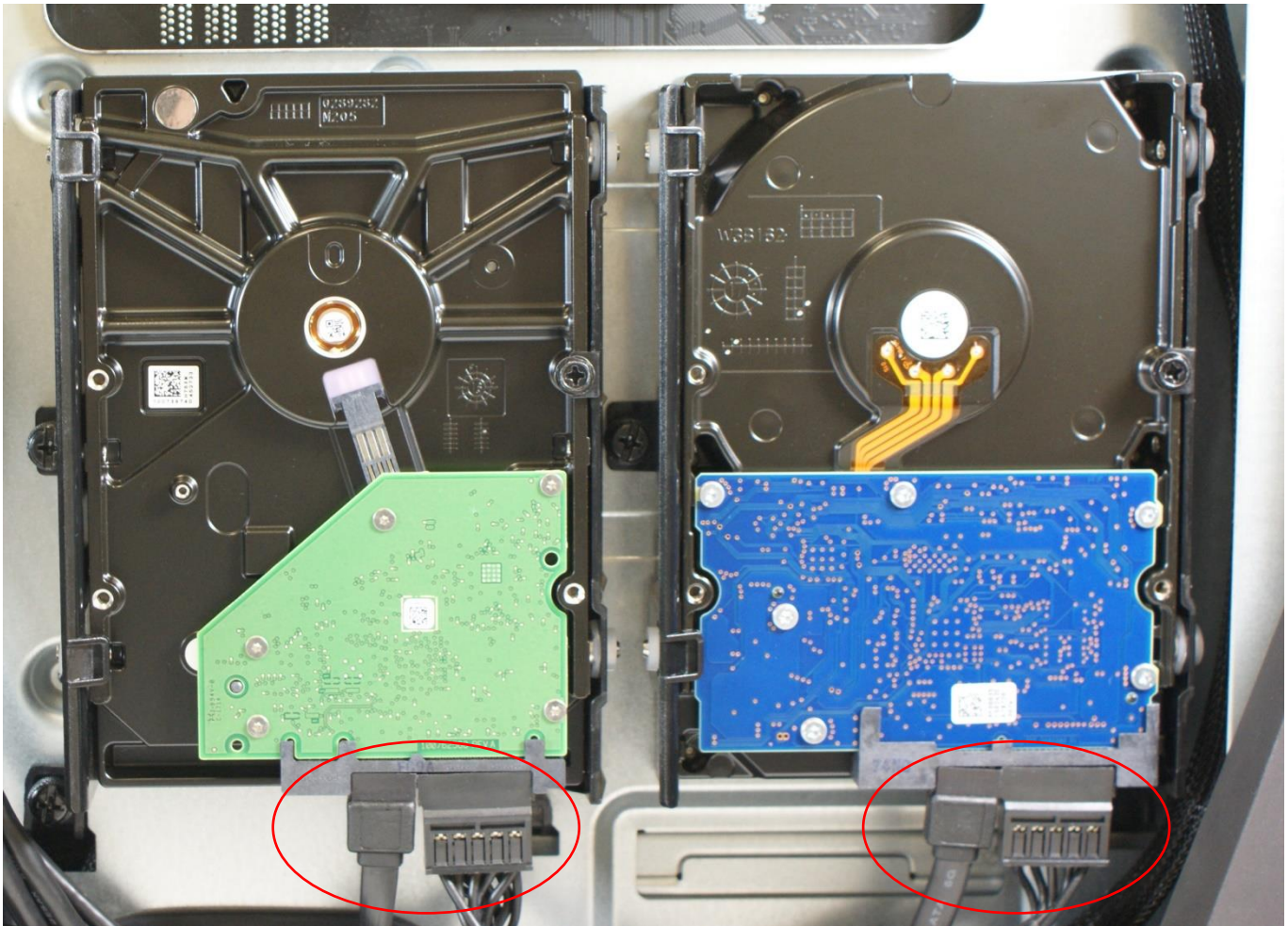
1. Remove the new hard drive from their packaging.
2. Insert the new hard drive into the bracket.



3. Secure the new hard drive with one screw.



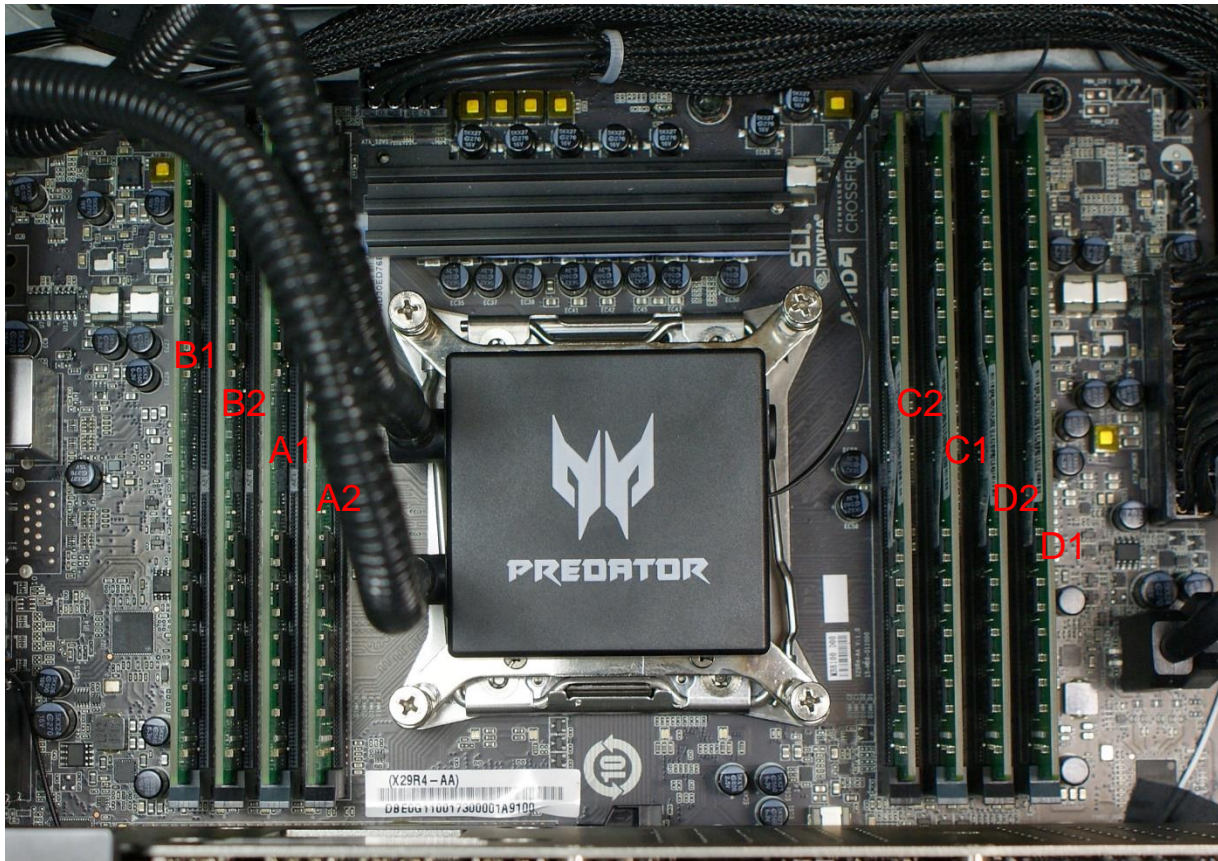
4. Connect the power and data cables to the hard drive.



5. Observe the Post-installation instructions on page 6

Memory

The computer has four DDR4 U-DIMM slots that support up to 128 GB maximum system memory.



Channel A/B

Channel C/D

Memory configuration guidelines

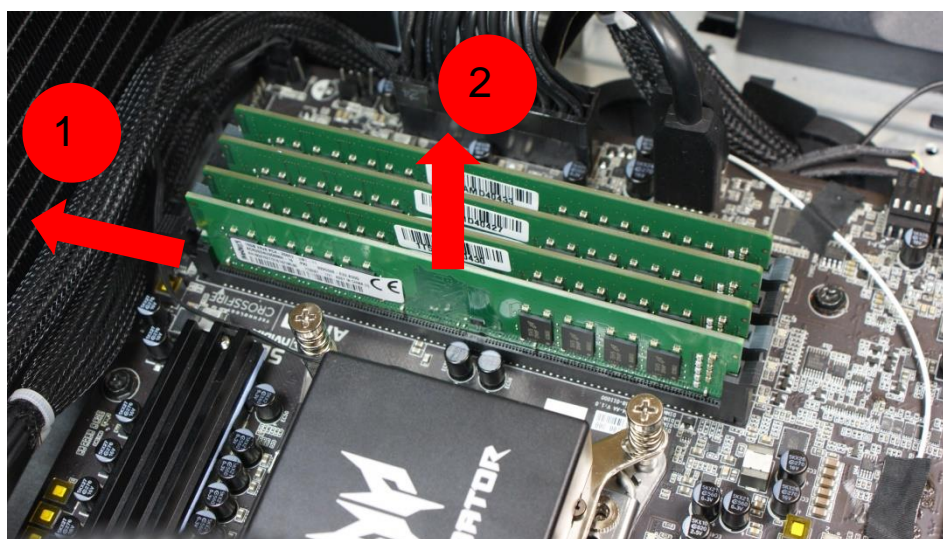
- To ensure data integrity, use only Acer-approved DDR4 2666 MHz type memory modules.
- Memory modules must be installed starting with DIMM1 slot.
- Always handle memory modules by its edges.
- When installing memory modules, populate the DIMM slots according to the table below.

CPU support	DIMM Channel A	DIMM Channel B	DIMM Channel C	DIMM Channel D
SKL-X	V	V	V	V
KBL-X	X	X	V	V

CPU support	DIMM_A1	DIMM_A2	DIMM_B1	DIMM_B2	DIMM_C1	DIMM_C2	DIMM_D1	DIMM_D2	Channel support
SKL-X (A>B) Different capacity value	/	/	/	/	A	/	/	/	Single
	/	/	/	/	A	/	A	/	Dual
	A	/	/	/	A	/	A	/	Triple
	A	/	A	/	A	/	A	/	Quad
	A	A	A	/	A	/	A	/	Quad
	A	A	A	/	A	A	A	/	Quad
	A	A	A	A	A	A	A	A	Quad
	A	A	A	A	A	A	A	A	Quad
	A	B	A	A	A	A	A	A	Quad
	A	B	A	A	A	B	A	A	Quad
	A	B	A	A	A	B	A	B	Quad
	A	B	A	B	A	B	A	B	Quad
KBL-X (A>B) Different capacity value	/	/	/	/	A	/	/	/	Single
	/	/	/	/	A	/	A	/	Dual
	/	/	/	/	A	A	A	/	Dual
	/	/	/	/	A	B	A	/	Dual
	/	/	/	/	A	A	A	A	Dual
	/	/	/	/	A	B	A	B	Dual

Removing a memory module

1. Perform Pre-installation instructions on page 6.
2. Press outward the holding clips on both sides of the DIMM slot outward to release the memory module (1).
3. Gently pull the memory module upward to remove it from the DIMM slot (2).



4. Repeat steps 2~3 to remove the other memory modules.

Installing a memory module



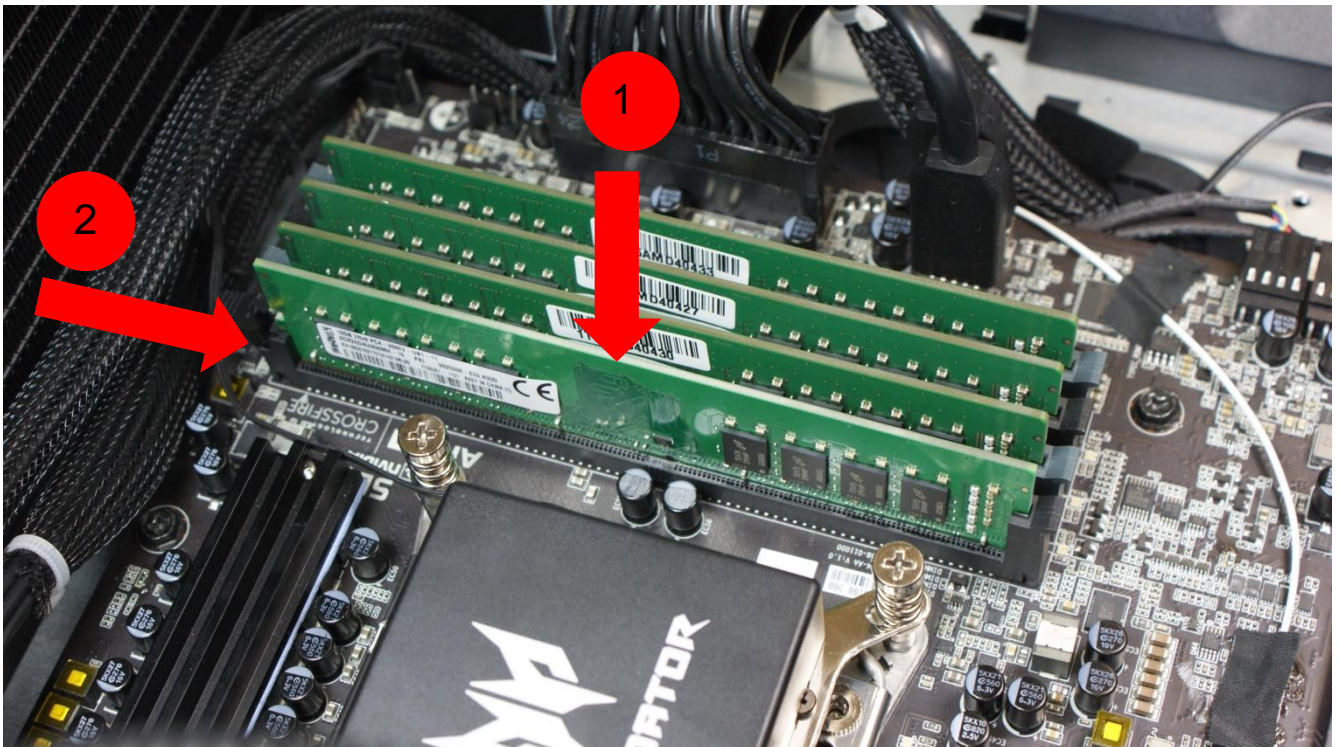
Note

DIMM slots on the mainboard must be installed only in certain configurations. Numbers next to DIMM slots correspond to installation sequence.

Be sure to install the memory module in DIMM1 slot followed by DIMM2 slot.

1. Select an empty DIMM slot.
2. Remove the new memory module from its packaging, handling it by the edges.
3. Align then insert the memory module into the DIMM slot (1).
4. Insert the memory to the slot until the retaining clips snap inward (2).

The module is keyed so it can only be inserted in one direction. If the module does not fit, make sure that the notch in the module lines up with the tab in the memory slot.



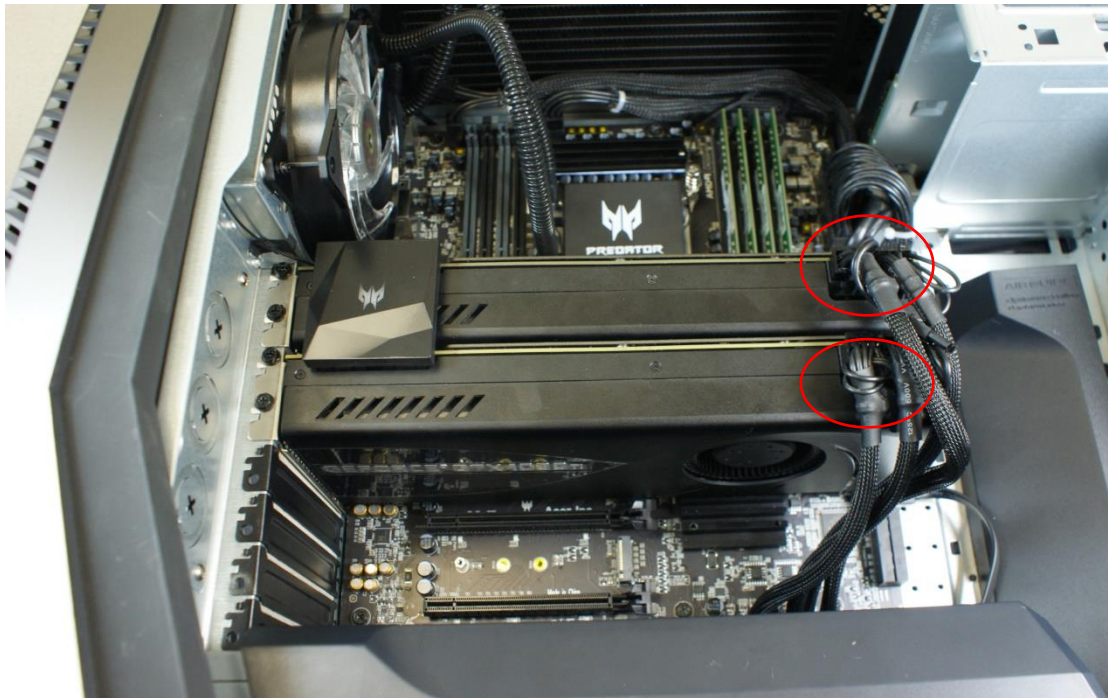
5. Repeat steps 2~4 to install the other memory modules.
6. Observe the Post-installation instructions on page 6.

Graphic board

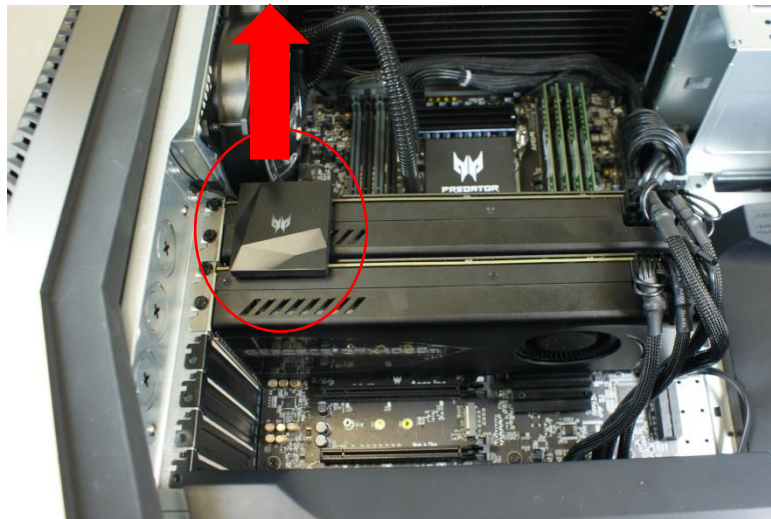
The computer contains one or two (up to four) Graphic boards installed in the PCIe x16 slots. The detail configuration will be differed by different models.

Removing the Graphic board

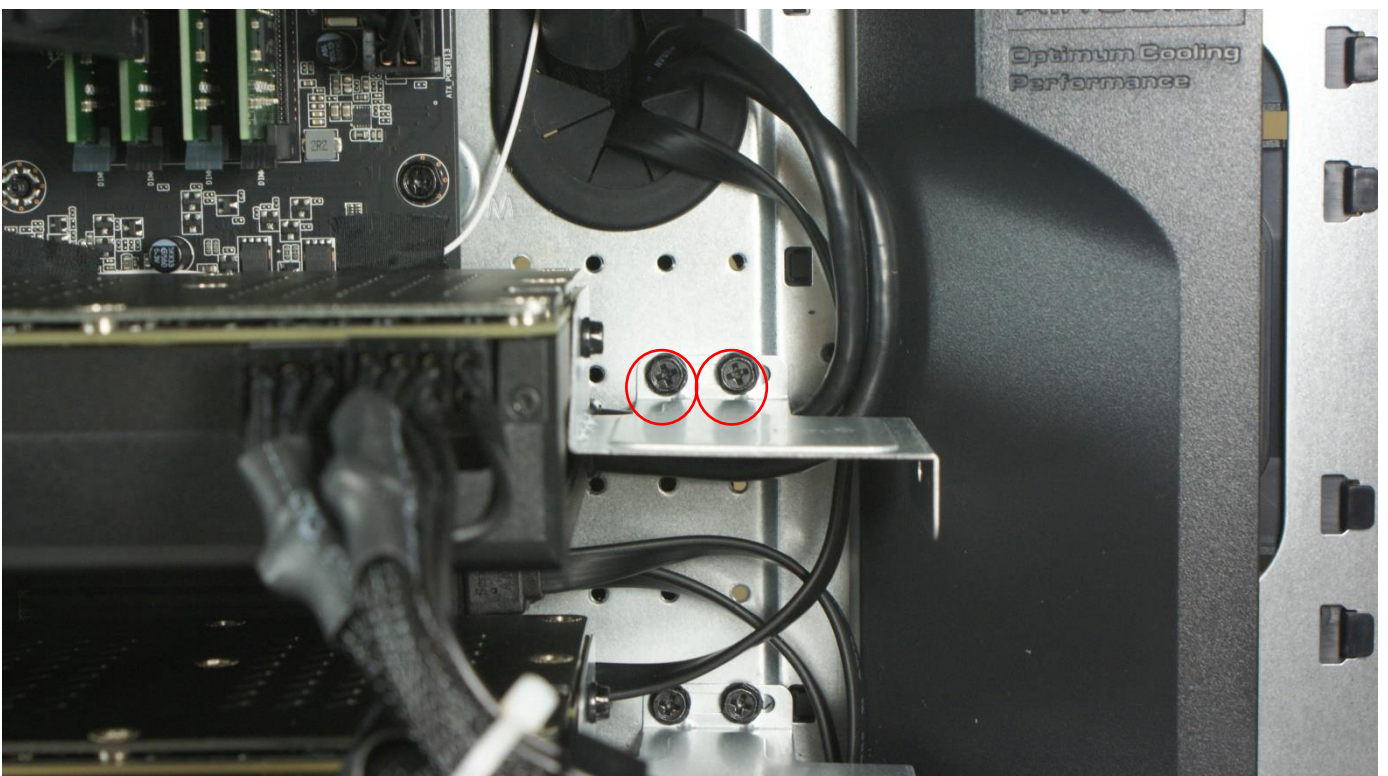
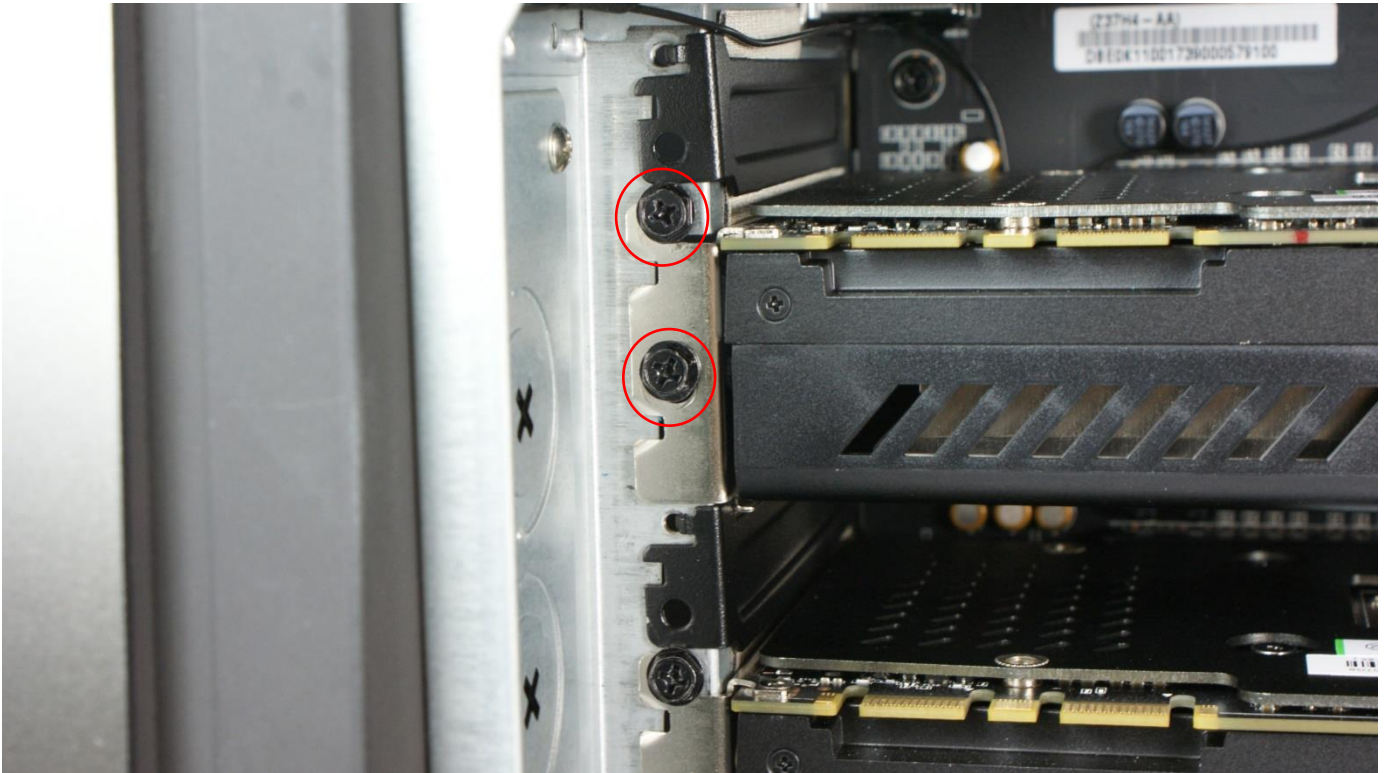
1. Perform Pre-installation instructions on page 6.
2. Disconnect the power cables from the Graphic board.



3. Remove the tape and disconnect the bridge from the Graphic boards.

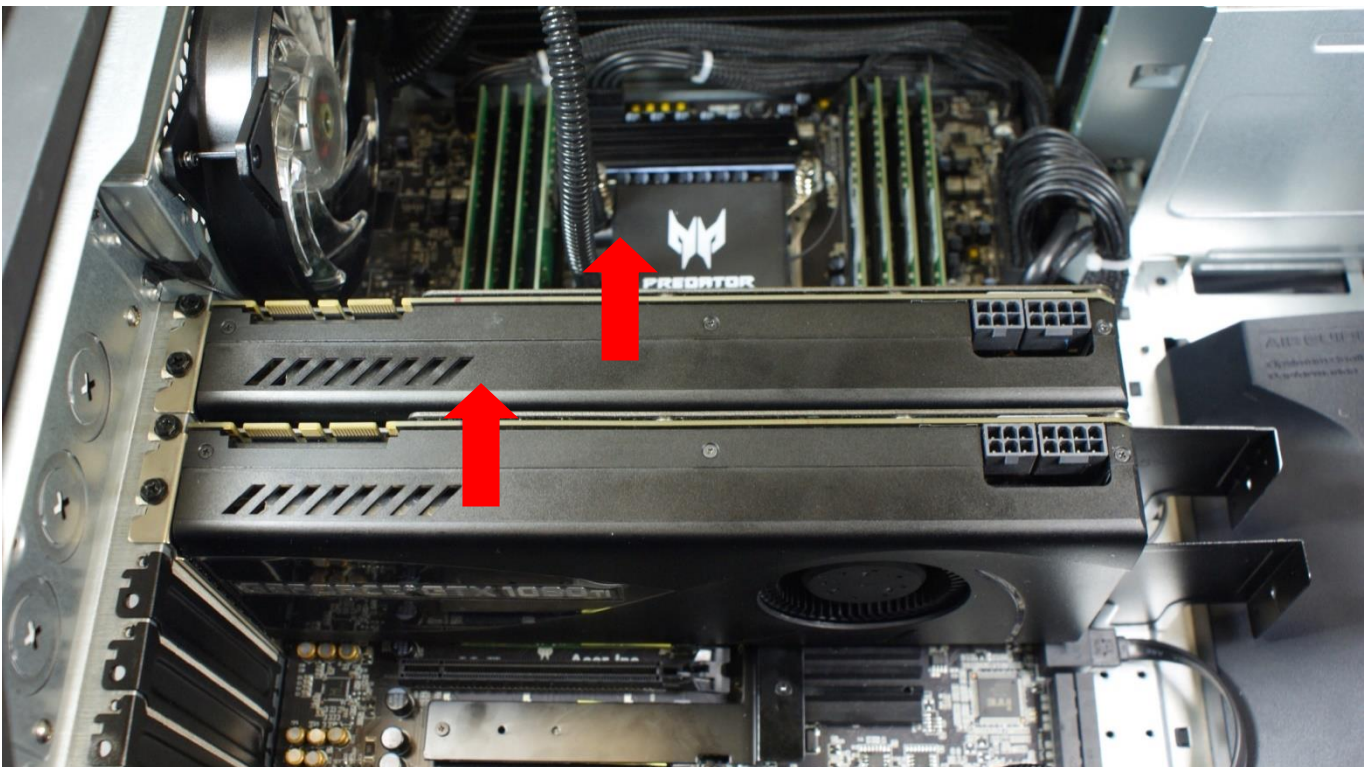
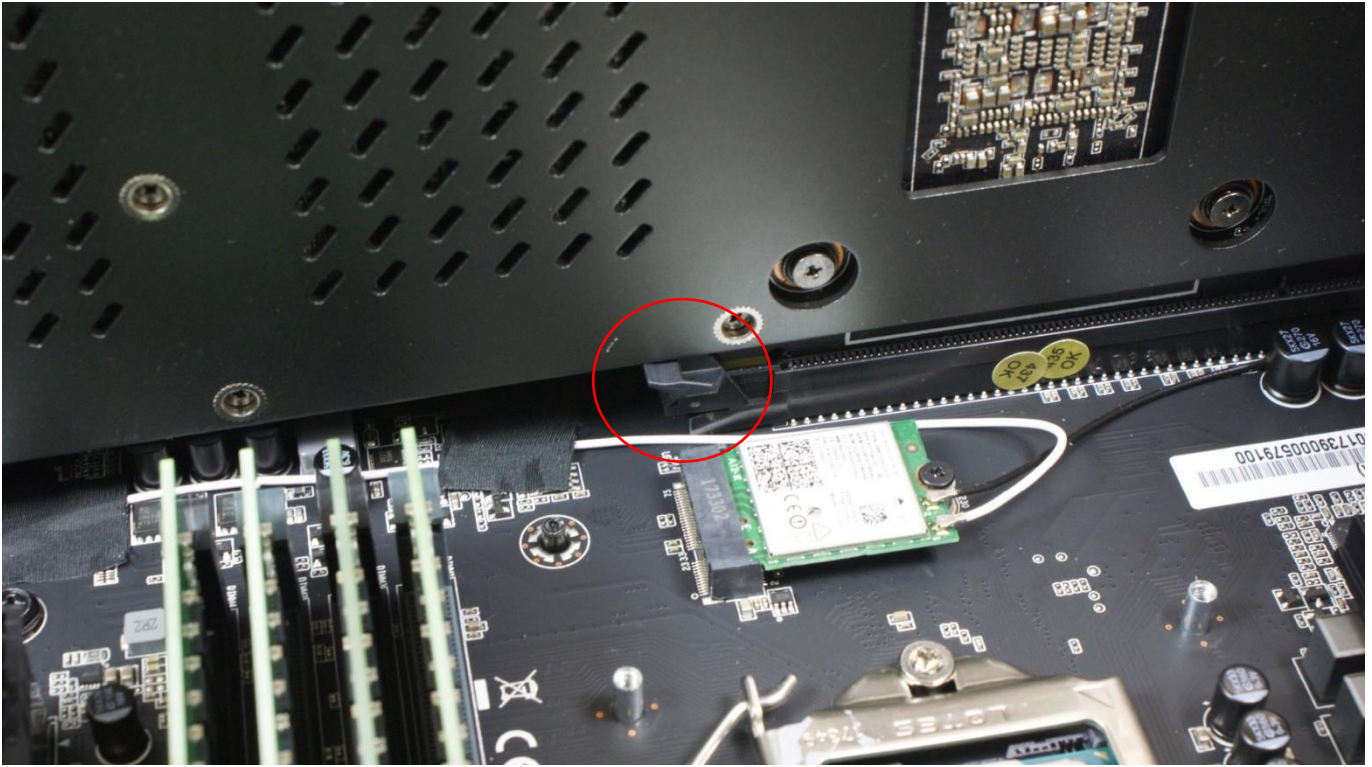


4. Remove the screw that secure the Graphic boards to the chassis.



5. Release the latch that secures the graphic board to the mainboard.

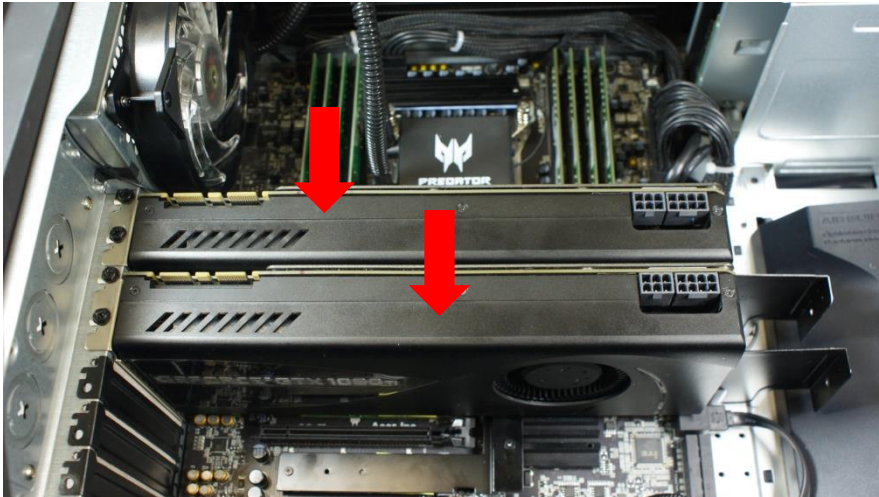
6. Detach the Graphic board from the PCIe x16 slot.



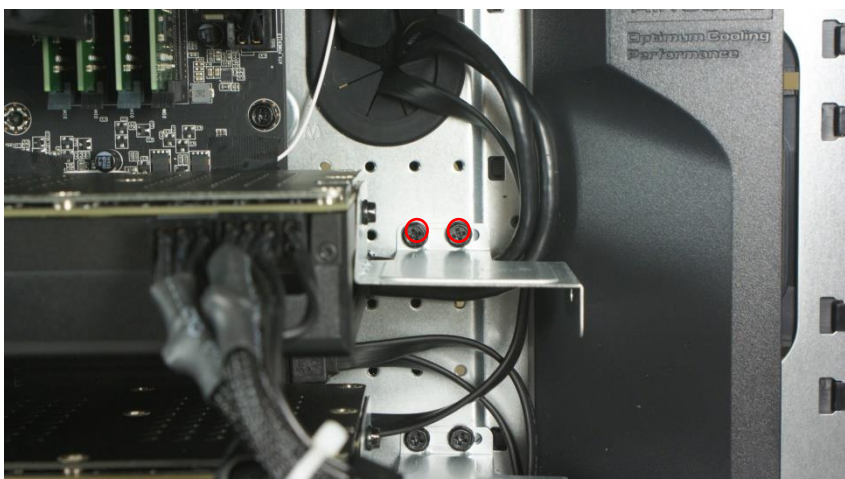
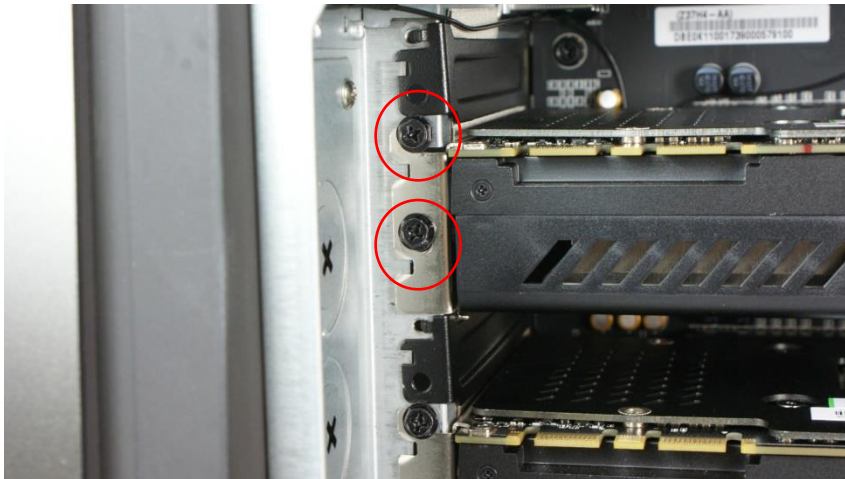
Installing the Graphic board

1. Remove the new graphic board from its packaging.
2. Insert the Graphic boards into the PCIe x16 slot and press it down until it latches into place.

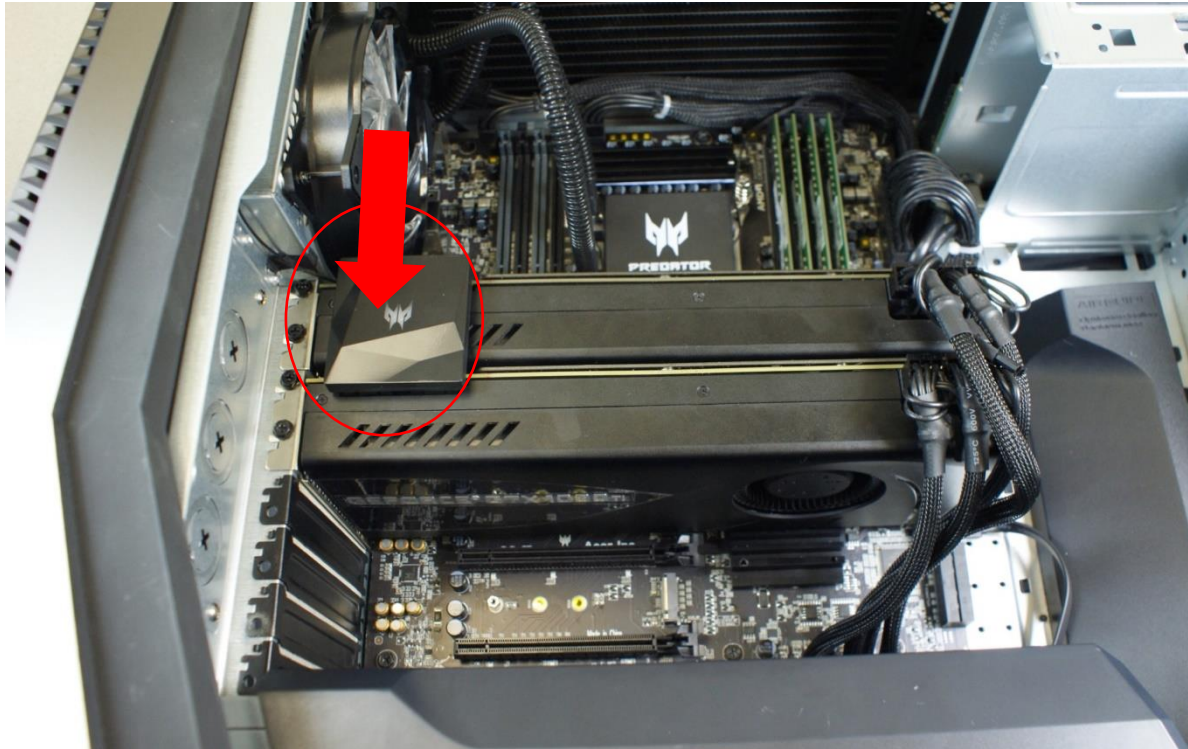
[Note] For replace/upgrade graphic board, please check the specification of graphic board & power supply first in order to make sure the graphic board and power supply could work.



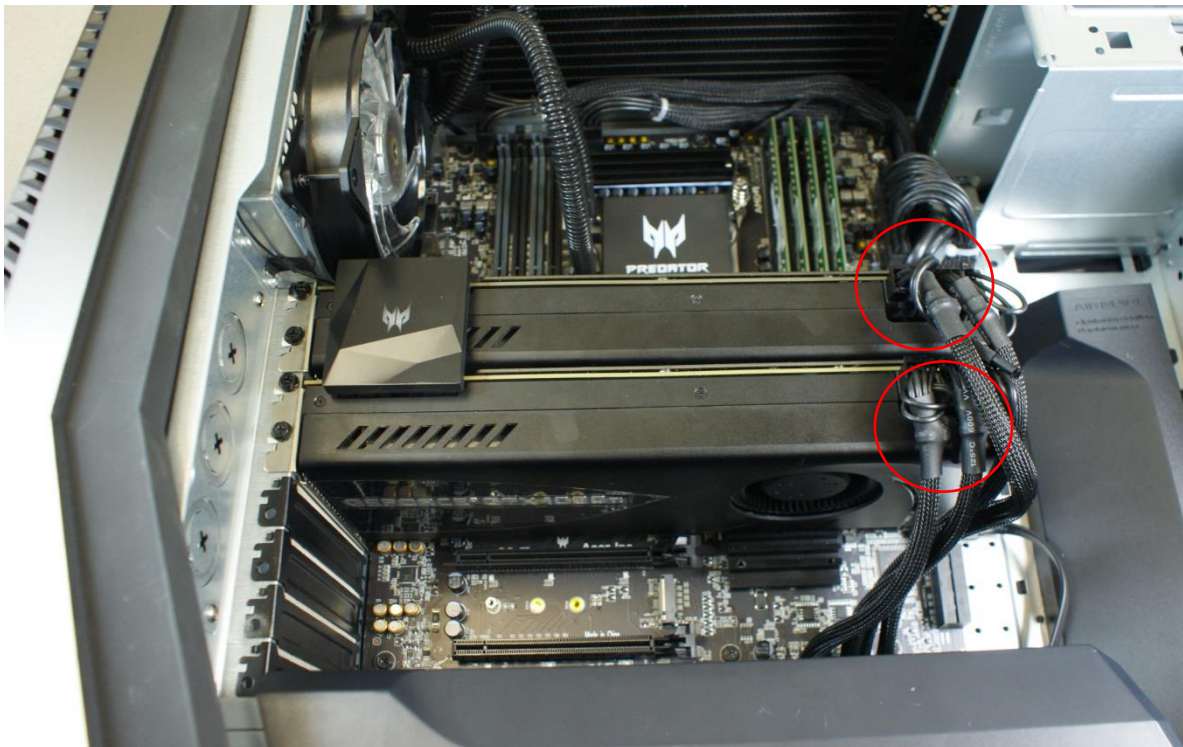
3. Secure the Graphic board with screws.



4. Connect the bridge from the graphic board.



- 5. Connect the power cables to the Graphic boards
- 6. Observe the Post-installation instructions on page 6

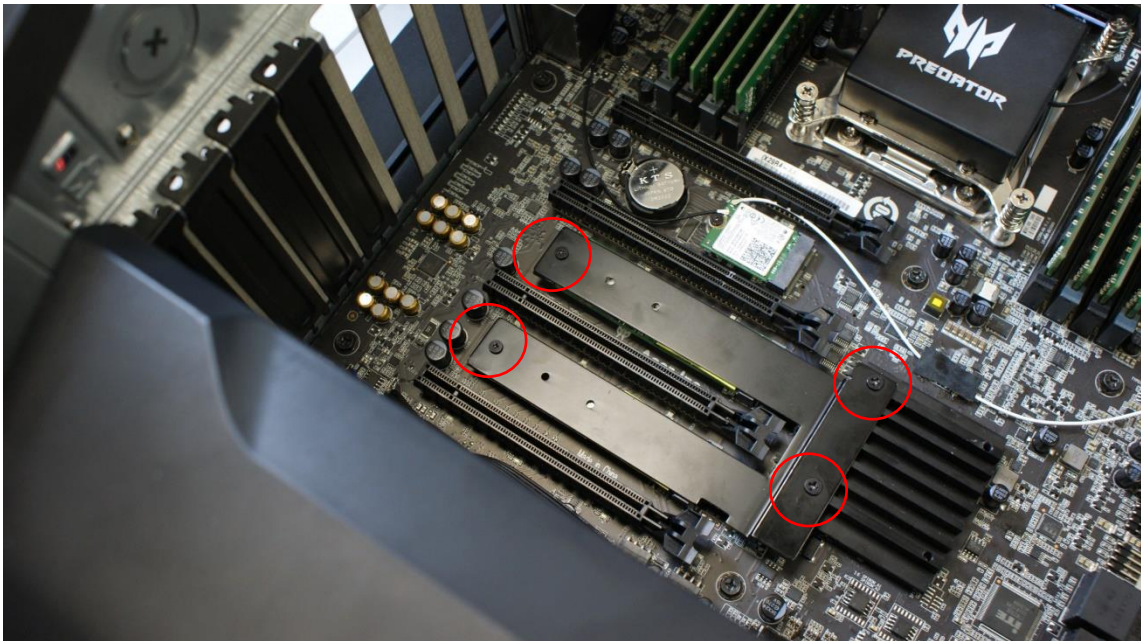


M.2 SSD module

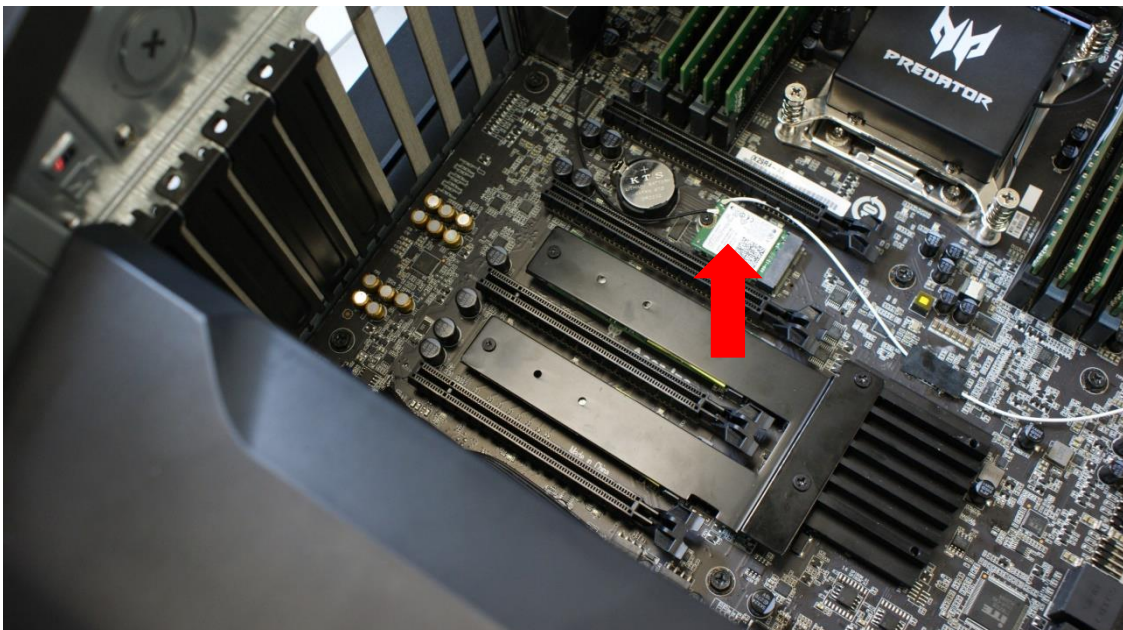
The computer contains one M.2 SSD module installed in the M.2 PCIe slot.

Removing the M.2 SSD module

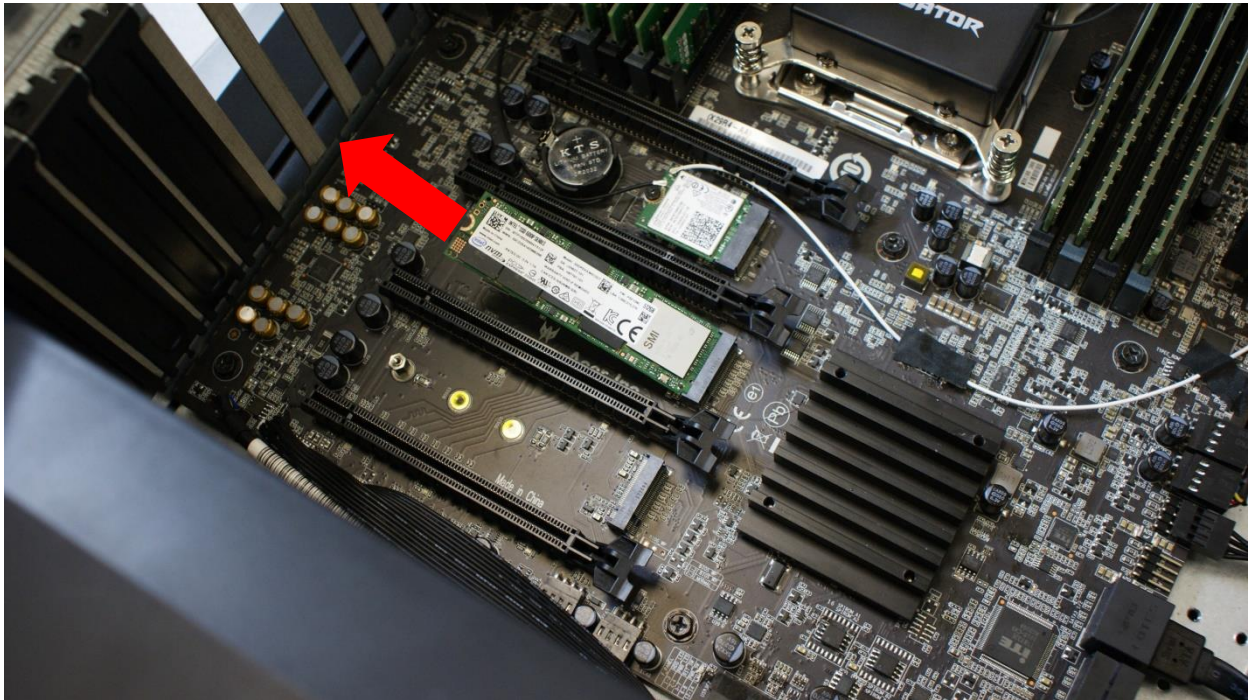
1. Perform Pre-installation instructions on page 6.
2. Remove the Graphic board. See Removing the Graphic board.
3. Remove the screws that secures the thermal heat-sink module from the mainboard



4. Remove the thermal heat-sink module from the mainboard.

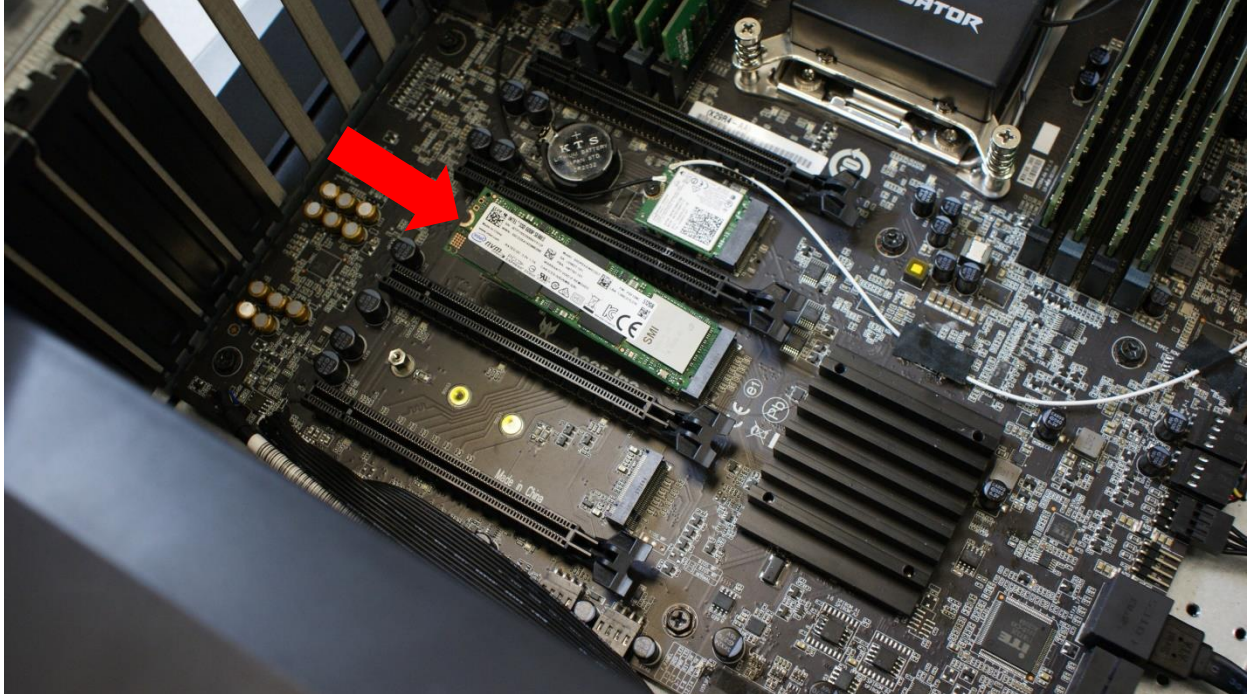


5. Detach the M.2 SSD module from the mainboard.

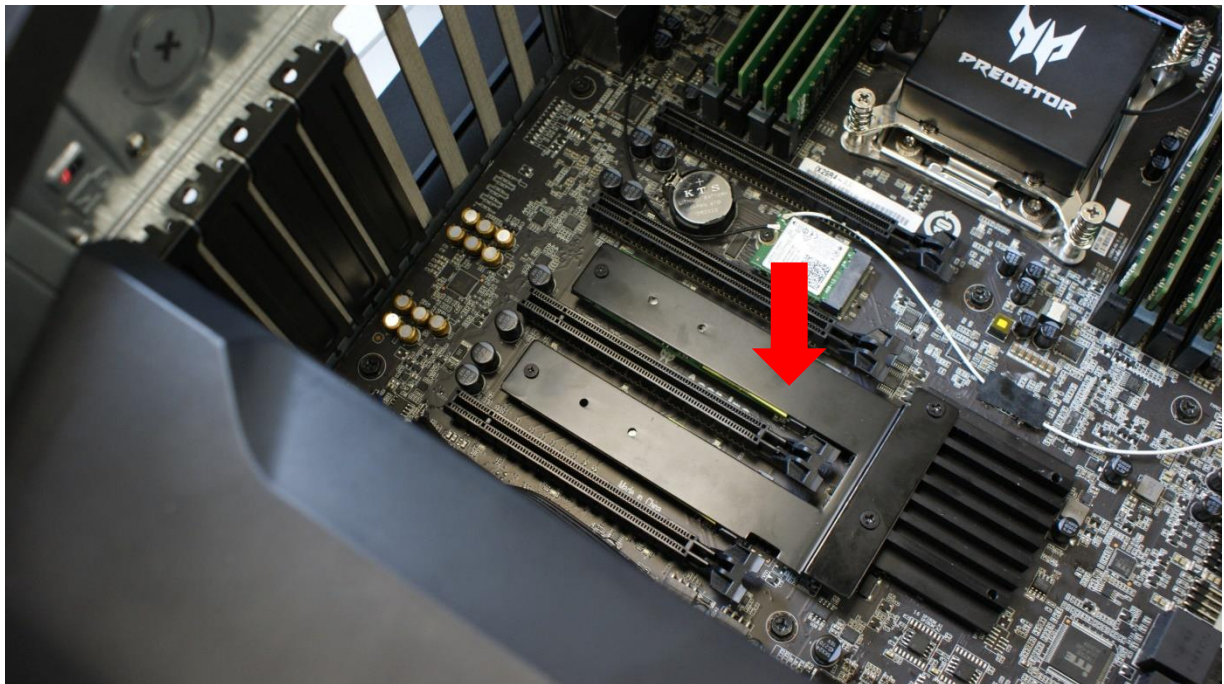


Installing the M.2 SSD module

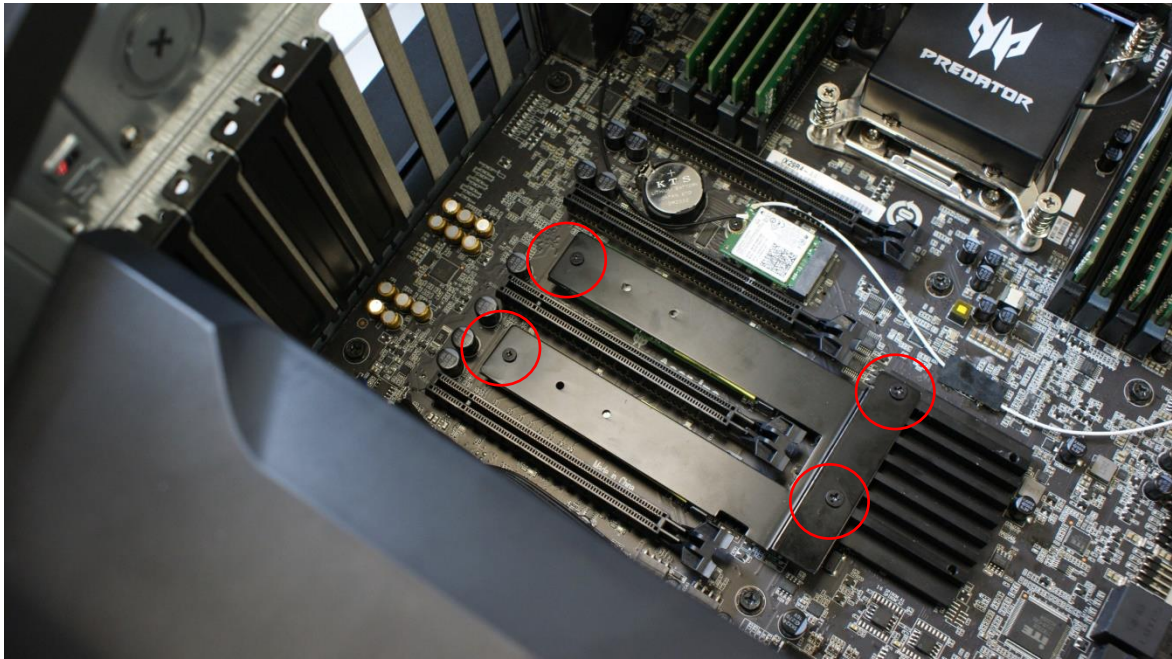
1. Remove the new M.2 SSD module from its packaging.
2. Insert the M.2 SSD module into its slot in the mainboard.



3. Insert the thermal heat-sink module to the mainboard.



4. Secure the M.2 SSD and thermal module with screws.



5. Replace the Graphic board. See Installing the Graphic board.

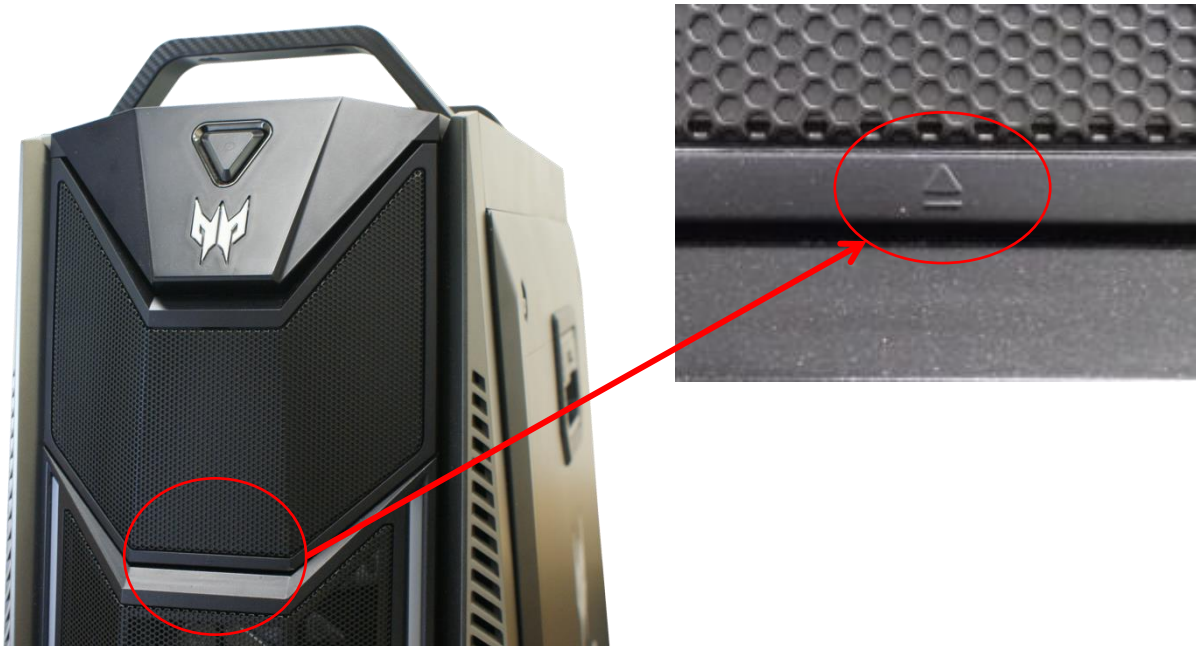
6. Observe the Post-installation instructions on page 6.

ODD drives

The computer supports installation of one ODD drives.

Open ODD door.

1. Perform Pre-installation instructions on page 6.
2. Push triangle icon for opening.



PredatorSense

In this section, you will find:

- Introduction to the PredatorSense utility
- How to use PredatorSense

2 PREDATORSENSE

PredatorSense (DT) is an Acer proprietary utility to enhance the user experience of Gaming products on Microsoft Windows 10.

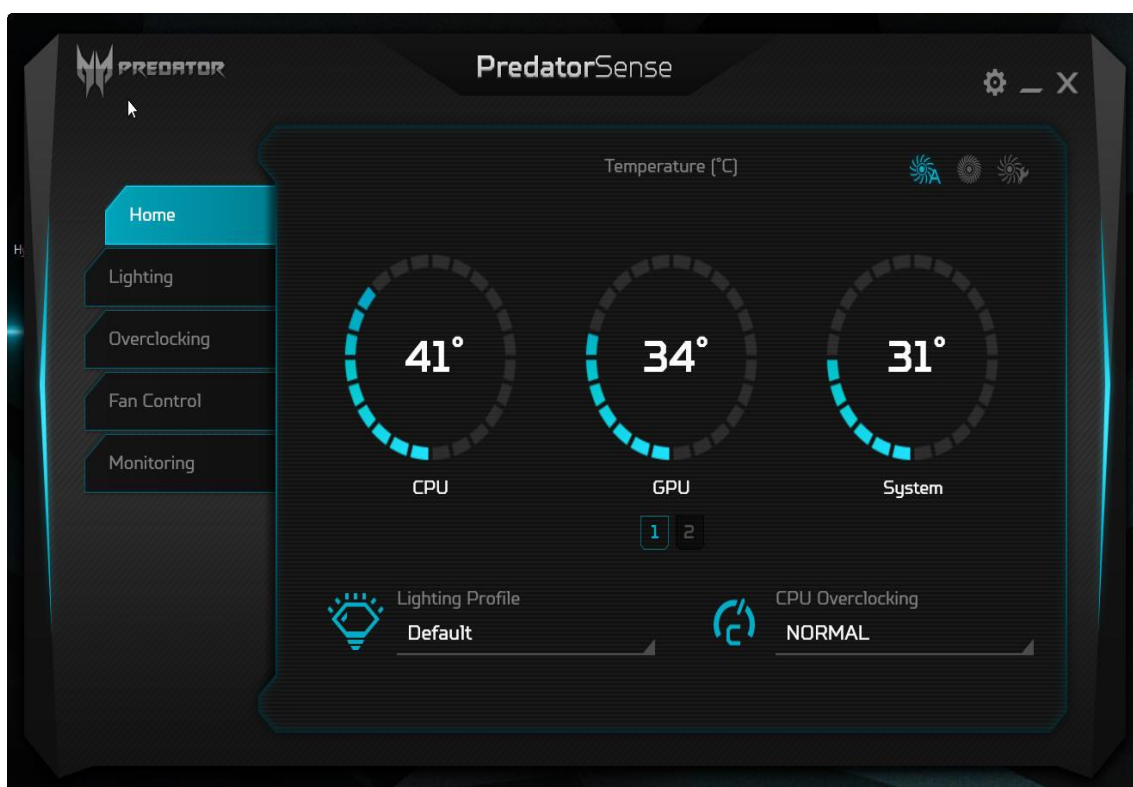
The central idea of this utility is to provide a user interface to easily control fan speed, RGB chassis and also display system information.

PredatorSense features

- **System information dashboard**
- **Fan speed control**
- **Lighting control**
- **Overclocking**
- **Monitoring**
- **Advanced settings**
- **Live update**

To set up the PredatorSense application (Windows 10):

1. From the *Start menu*, select **All apps**.
2. Select **Acer**.
3. Select **PredatorSense**.



Alternatively, you can double-click the PredatorSense desktop shortcut to run the application.

Category	Description
Home	<p>Provide overview of all features with quick adjustment</p> <ul style="list-style-type: none"> • CPU/GPU/System health information • Fan speed control (Auto, Gaming and Silence) • Lighting profile • CPU overlocking (Normal, Faster and Turbo)
Lighting	<p>Provide control and adjustment for the LEDs on Front Face, Left Side Face and Motherboard.</p> <ul style="list-style-type: none"> • On/Off • Color: 9 basic colors (last one is rainbow color), 9 recent • Colors which user creates the color via More Color(palette) button. • Front Lighting Effects: None, Breathing, Music, Wave, Risen, Rainbow stack, Extend, Meteor shower, Fluid magic light. <p>[Note] Please connection earphone before to using music</p> <p>Fan Lighting Effects: None, Breathing, Star, Wave, Marquee, Color cycle.</p> <p>Lighting Maker: user can play or audit music which connects Front LED/ Fan lighting.</p> <ul style="list-style-type: none"> • Speed: Support Wave, CPU temp (Of Front face)
Overclocking	<p>Provide CPU overclocking in 3 levels, Normal, Faster and Turbo level. And show the CPU loading, frequency, Max frequency.</p> <ul style="list-style-type: none"> • The physical Turbo button will light on when OC level is Faster level of Turbo level. • Press physical Turbo button to switch OC level in Normal level (light off) or Turbo level (light on). • When resume from S3/S4/S5, PredatorSense will sync the OC level from physical Turbo button.

Category	Description
Fan control	<p>Provide Fan speed control in Auto, Gaming and Custom mode for 3 fans including CPU fan, Front fan and Back fan. And show the fan speed for 3 fans. On the Custom fan speed, user can adjust the fan speed in percentage.</p> <ul style="list-style-type: none"> • Custom fan speed only can control by 60 ~ 100% percentage.
Monitoring	<p>Provide 3 tabs for CPU and GPU and System.</p> <ul style="list-style-type: none"> • Temperature in C/F • Loading in % • Frequency in MHz • Voltage in V • Fan speed in RPM • Download/Upload in bytes/s of WIFI/Ethernet • Usage in GB of RAM
Advanced settings	<p>Provide control for Enable lighting effects in sleep mode and Units of temperature</p>
Live update	<p>While user launches UI first time after a restart/boot while network is available, UI will start to check Acer web service. If there is any new update for PredatorSense, PredatorSense will download (silently) and install (not silent install).</p>

[Note] System will appear abnormal situation or reboot when overclocking(OC)