



# **Predator** P09-600 User's Guide

© 2017. All Rights Reserved.

Desktop Computer Covers:

Tower models

This revision: November 2017 V1.00



### **Important**

**This manual contains proprietary information that is protected by copyright laws. The information contained in this manual is subject to change without notice. Images provided herein are for reference only and may contain information or features that do not apply to your computer. Acer Group shall not be liable for technical or editorial errors or omissions contained in this manual.**

# TABLE OF CONTENTS

---

<b>1 Upgrading your computer</b>	<b>5</b>		
Installation precautions .....	5		
ESD precautions.....	5		
Required tools .....	5		
Pre-installation instructions.....	6		
Post-installation instructions .....	6		
System covers.....	7		
Removing the rear system cover .....	7		
Installing the rear system cover .....	8		
Removing the left side system cover .....	9		
Installing the left side system cover .....	10		
Hard drives .....	11		
Removing the 3.5-inch Easy Swap hard drive.....	11		
Installing the 3.5-inch Easy Swap hard drive.....	14		
		Removing the 3.5-inch hard drives .....	16
		Installing the 3.5-inch hard drives .....	21
		Memory .....	26
		Memory configuration guidelines.....	26
		Removing a memory module.....	27
		Installing a memory module.....	29
		Graphic board .....	32
		Removing the graphic board.....	32
		Installing the graphic board.....	35
		SSD module .....	37
		Removing the SSD module .....	37
		Installing the SSD module .....	39
<b>2 PredatorSense</b>	<b>41</b>		
PredatorSense features .....	41		

# 1 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 rear system cover on page 7** and **Removing the left 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.**

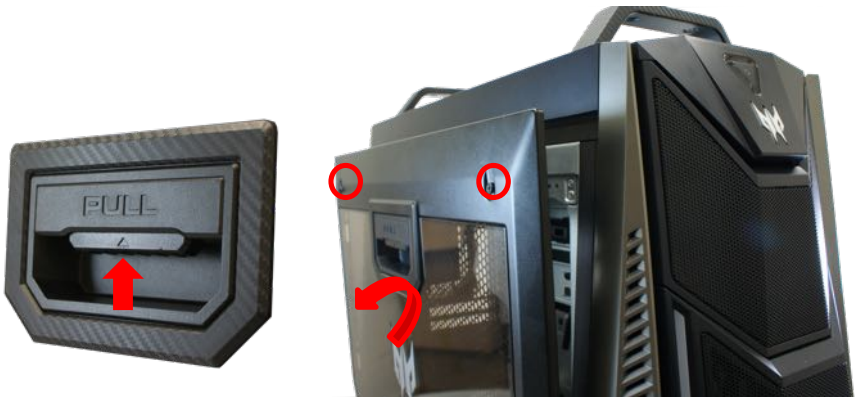
## Post-installation instructions

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 10** and **Installing the rear system cover on page 8**.
4. Connect the necessary cables.
5. Turn on your computer.

## 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.



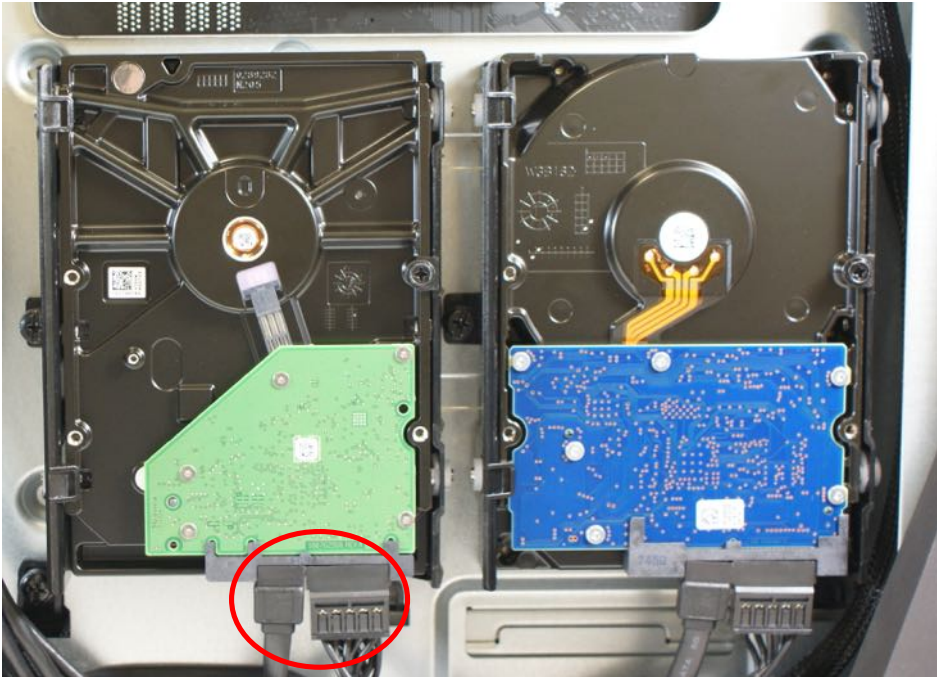
3. Observe the **Post-installation instructions on page 6.**

## Hard drives

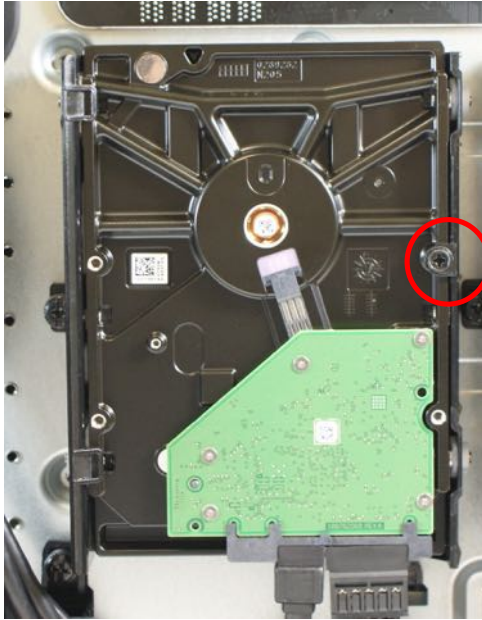
The computer supports installation of one 3.5-inch SATA hard drives in the internal HDD cage.

### 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

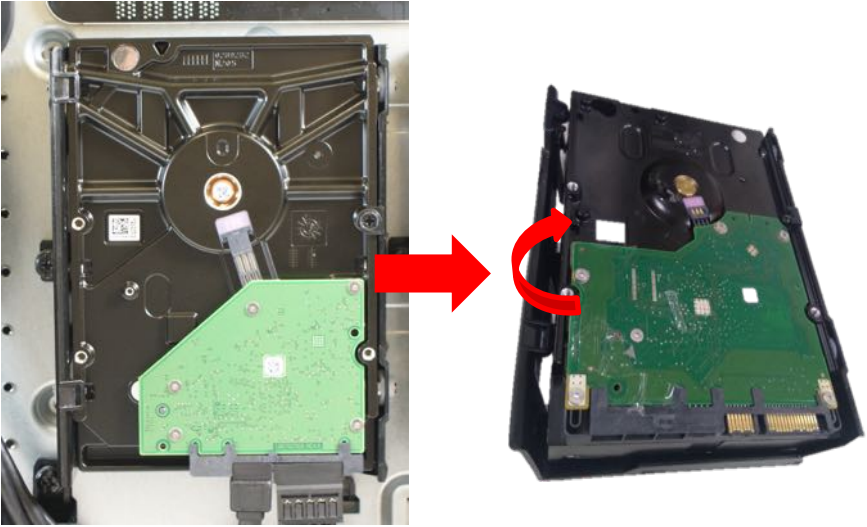


4. Remove the hard drives from the bracket.

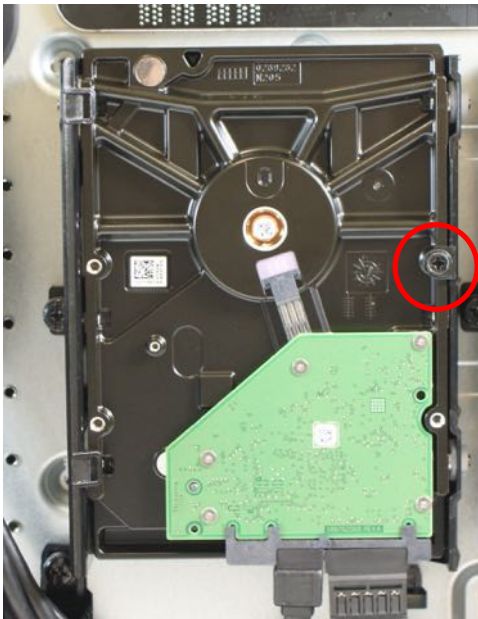


## Installing the 3.5-inch hard drives

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

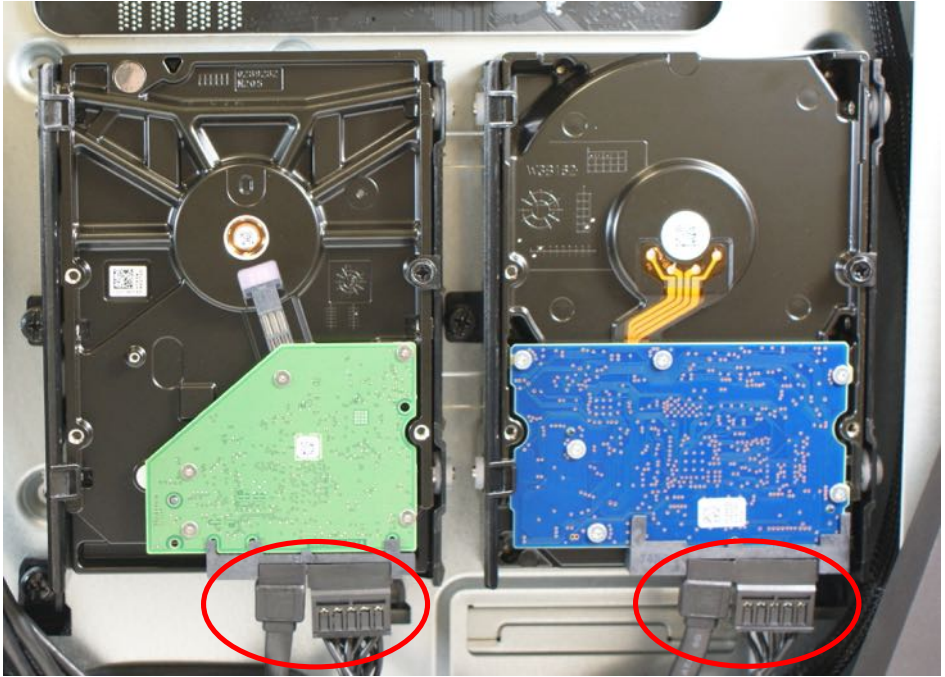


3. Secure the new hard drive with one screws.





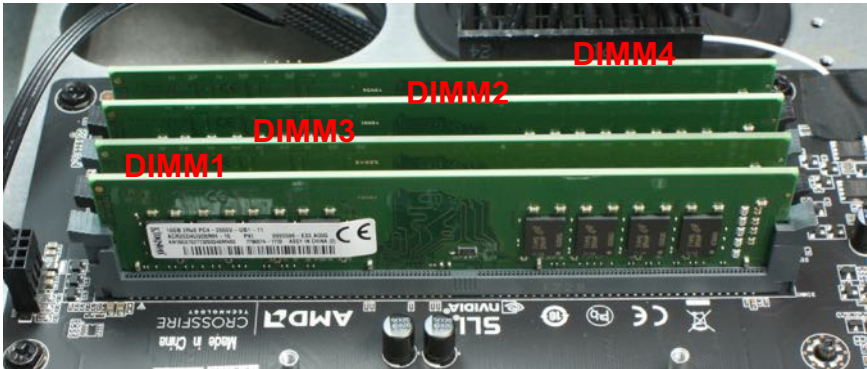
4. Connect the power and data cables to the hard drive.



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

## Memory

The computer has four DDR4 U-DIMM slots that support up to 64 GB maximum system memory.



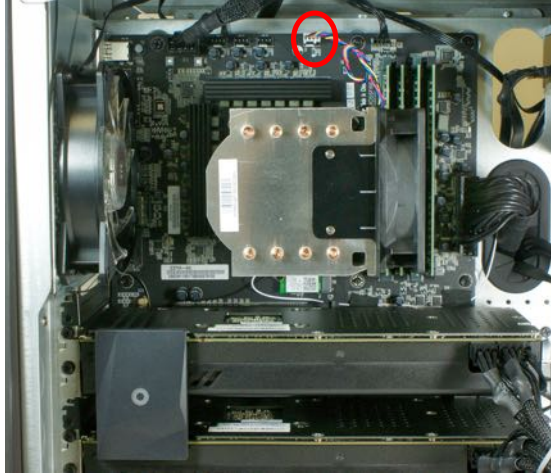
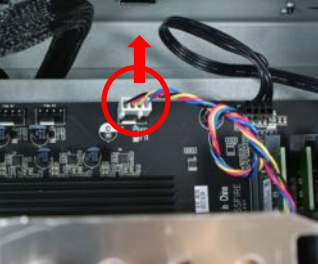
### Memory configuration guidelines

- To ensure data integrity, use only Acer-approved DDR4 2133 MHz type memory modules.
- Memory modules must be installed starting with DIMM3 slot.
- Always handle memory modules by its edges.
- When installing memory modules, populate the DIMM slots according to the table below.

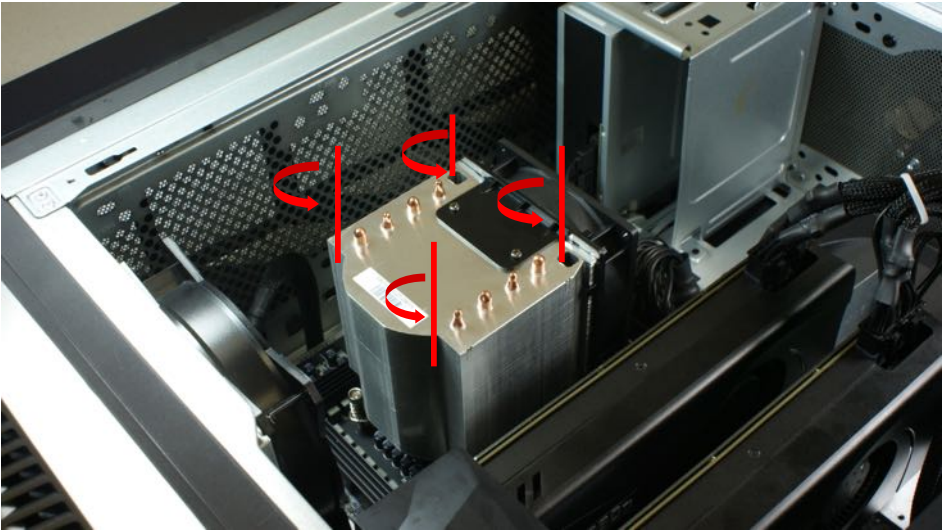
Size	DIMM1	DIMM2	DIMM3	DIMM4
4GB	N/A	N/A	4GB	N/A
8GB	N/A	N/A	4GB	4GB
12GB	4GB	N/A	4GB	4GB
16GB	4GB	4GB	4GB	4GB
8GB	N/A	N/A	8GB	N/A
16GB	N/A	N/A	8GB	8GB
24GB	8GB	N/A	8GB	8GB
32GB	8GB	8GB	8GB	8GB
16GB	N/A	N/A	16GB	N/A
32GB	N/A	N/A	16GB	16GB
48GB	16GB	N/A	16GB	16GB
64GB	16GB	16GB	16GB	16GB

## Removing a memory module

1. Perform **Pre-installation instructions on page 6.**
2. Disconnect the thermal fan cable from the mainboard.

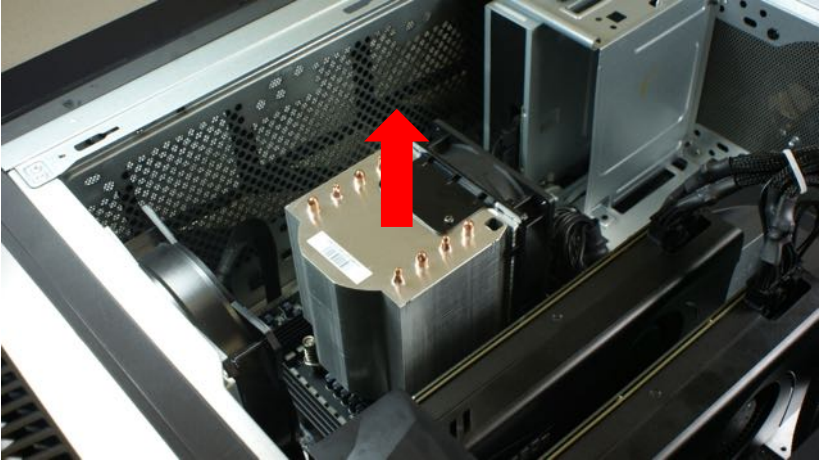


3. Use a long screw driver to loosen the four captive screws securing the thermal module to the mainboard.



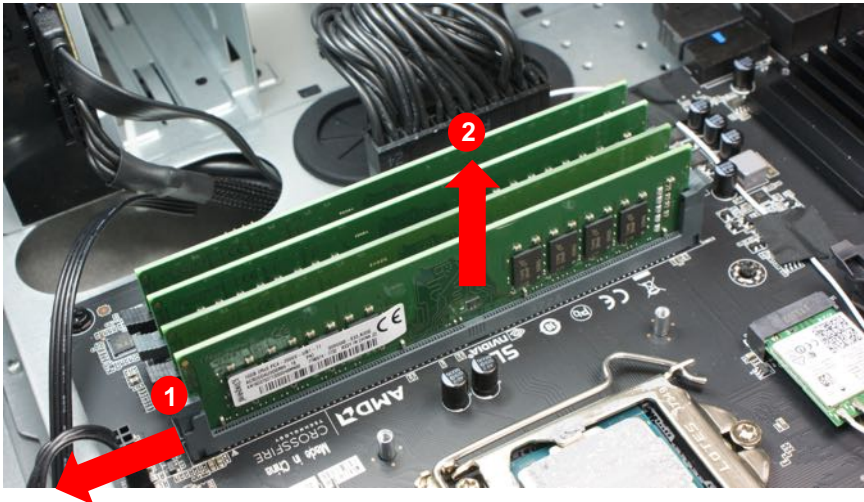


4. Remove the thermal module from the chassis.



5. Press outward the holding clips on both sides of the DIMM slot outward to release the memory module (1).

6. Gently pull the memory module upward to remove it from the DIMM slot (2).



7. Repeat steps 5~6 to remove the other memory modules.

## Installing a memory module



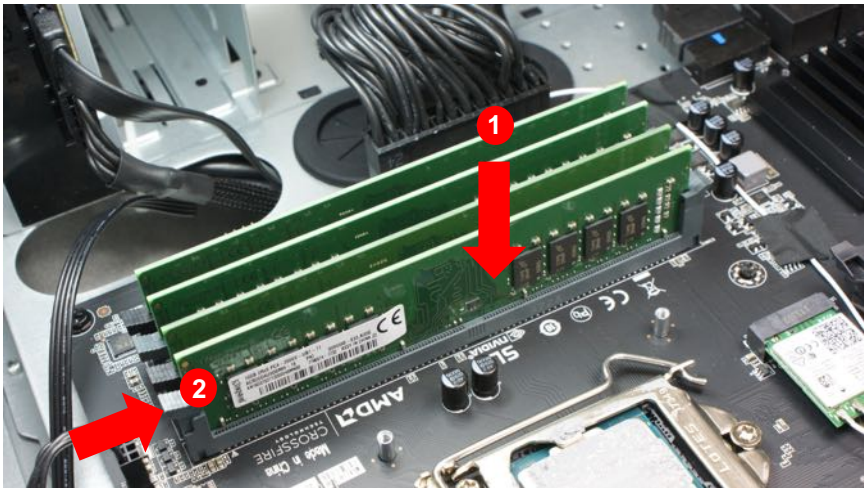
### Note

*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.*

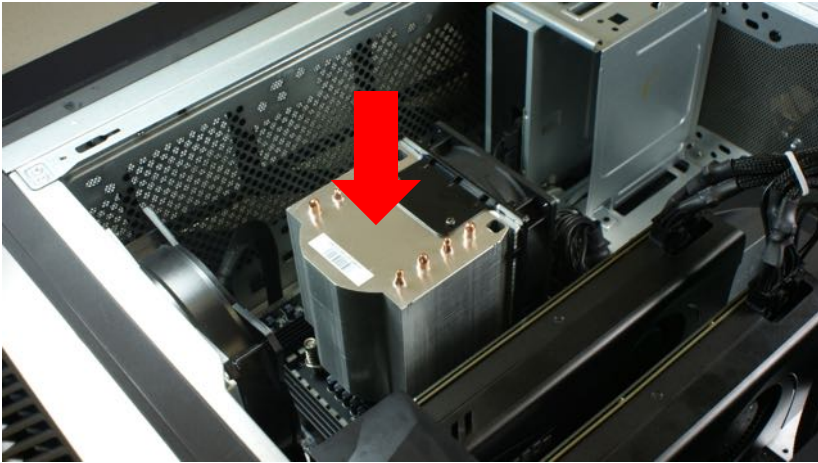
1. Select an empty DIMM slot.
2. Remove the new memory module from its packaging, handling it by the edges.
3. Align then insert the memory module into the DIMM slot (1).
4. Insert the memory to the slot until the retaining clips snap inward (2).

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.

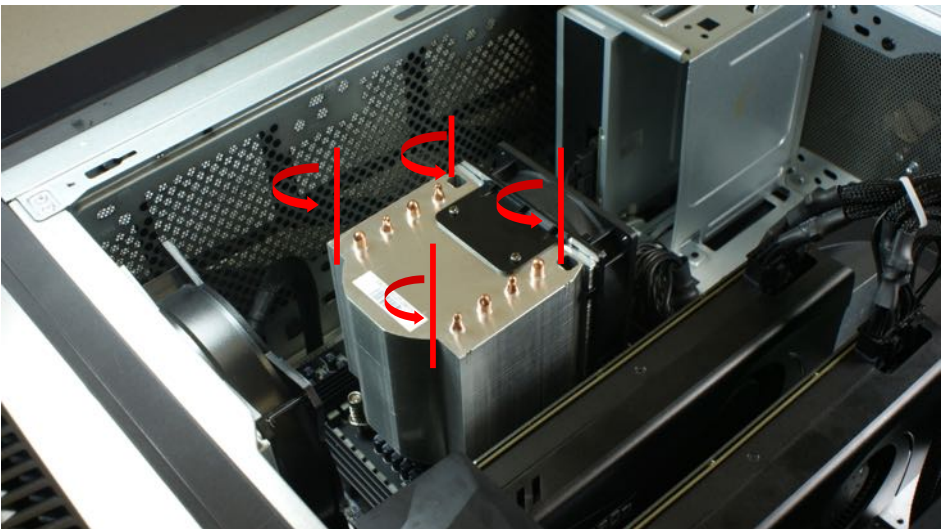


5. Repeat steps 1~4 to install the other memory modules.

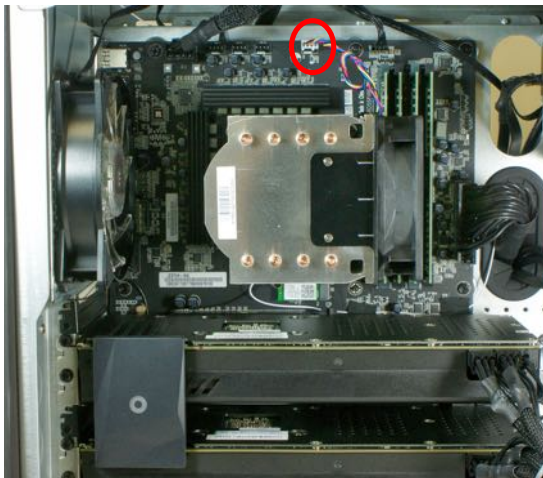
6. Place the thermal module into the chassis.



7. Use a long screw driver to tighten the four captive screws and secure the thermal module to the mainboard.



8. Connect the thermal fan cable to the mainboard.



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

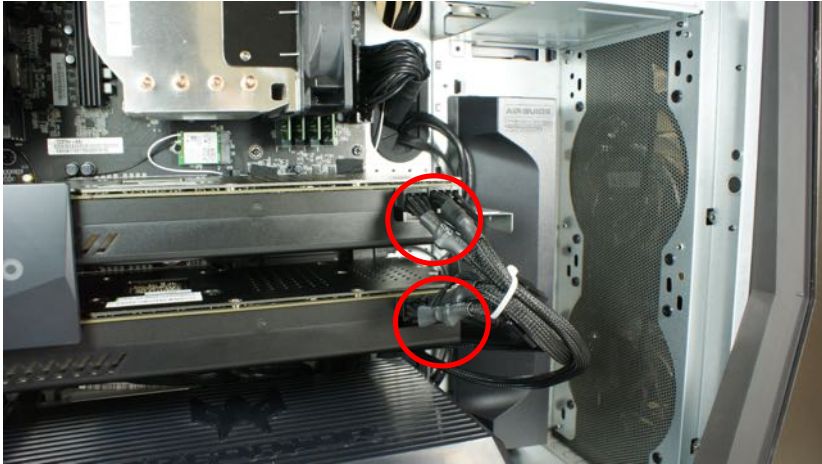


## Graphic board

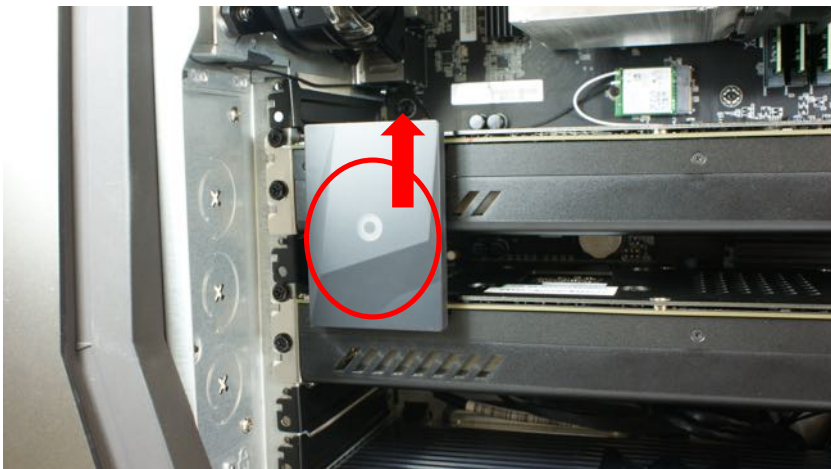
The computer contains one or two graphic boards installed in the PCIe x16 slot.

### Removing the graphic board

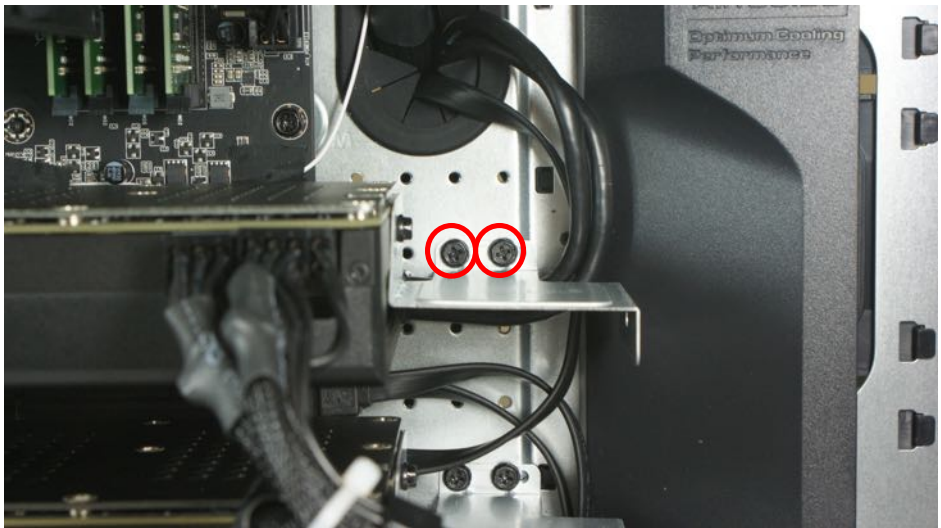
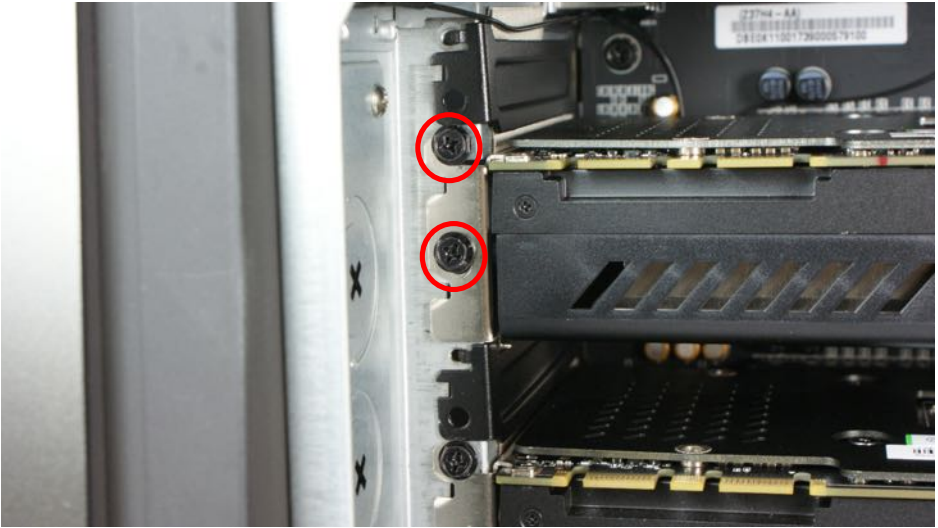
1. Perform **Pre-installation instructions on page 6**.
2. Disconnect the power cables from the graphic boards.



3. Disconnect the bridge from the graphic boards.



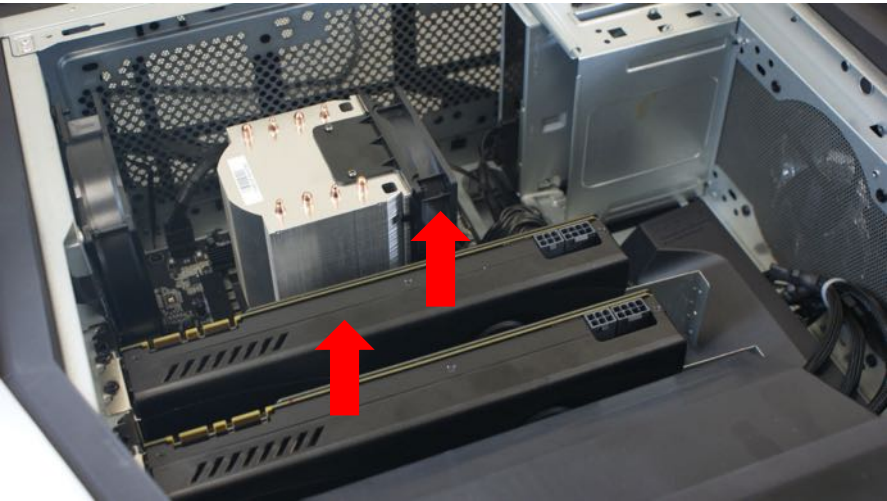
4. Remove the screws that secure the graphic board to the chassis.



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

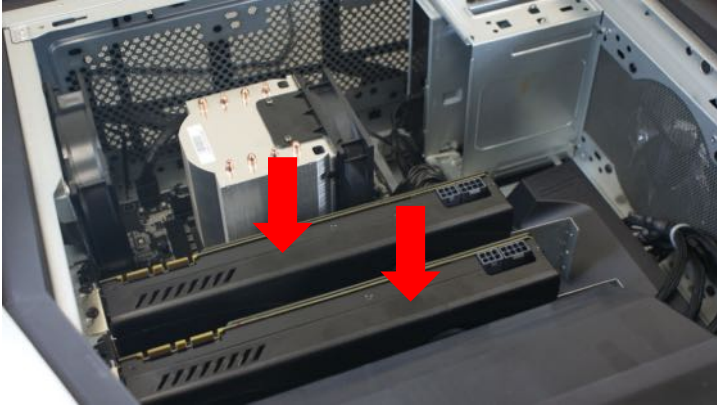


6. Detach the graphic board from the PCIe x16 slot.

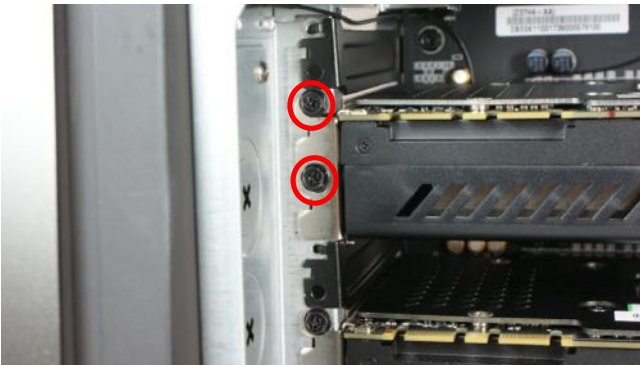


## Installing the graphic board

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

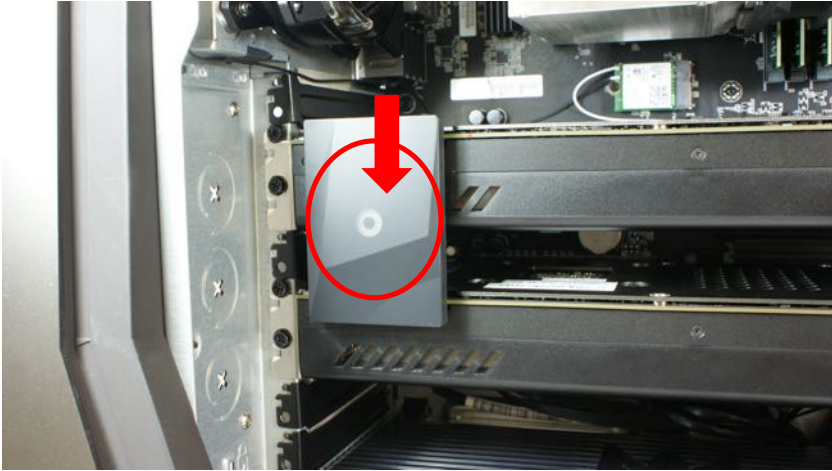


3. Secure the graphic board with one screw.

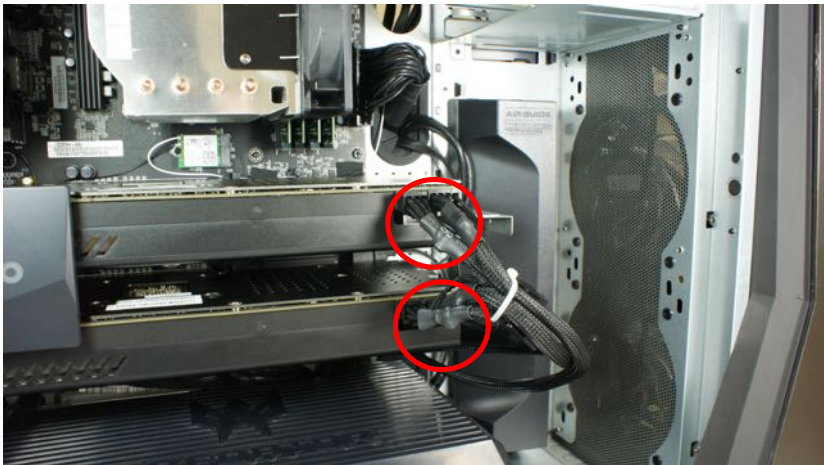




4. Connect the bridge from the graphic board.



5. Connect the power cables to the graphic board.



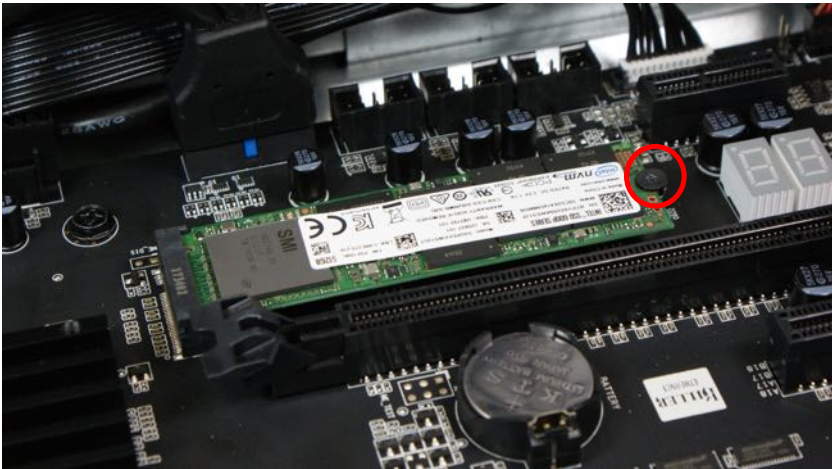
6. Observe the **Post-installation instructions on page 6**

## M.2 SSD module

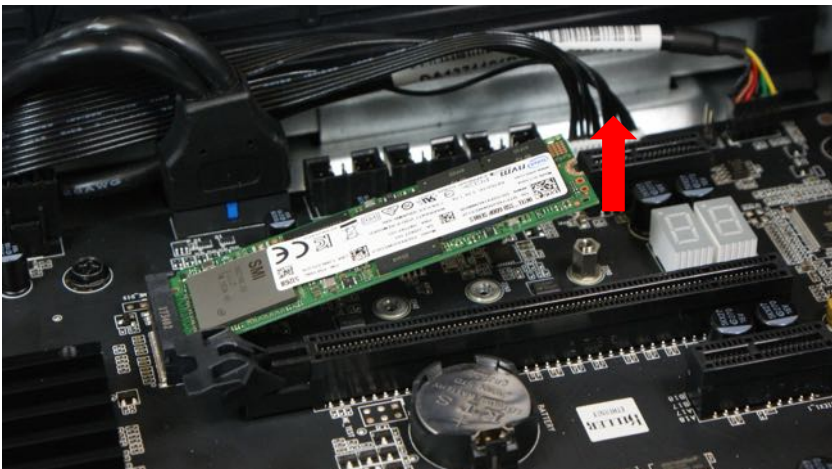
The computer contains one M.2 SSD module installed in the M.2 PCIe slot.

### Removing the SSD module

1. Perform [Pre-installation instructions on page 6](#).
2. Remove the graphic board. See [Removing the graphic board on page 32](#).
3. Remove the screw that secures the M.2 SSD module to the mainboard.

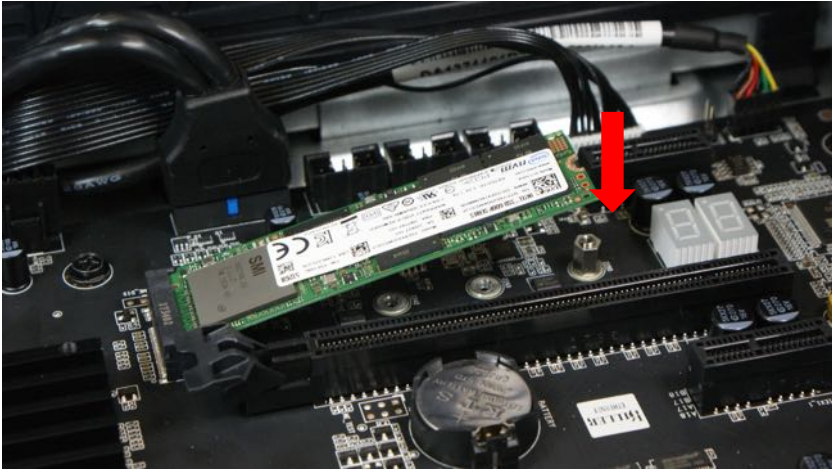


4. Detach the M.2 SSD module from the mainboard.

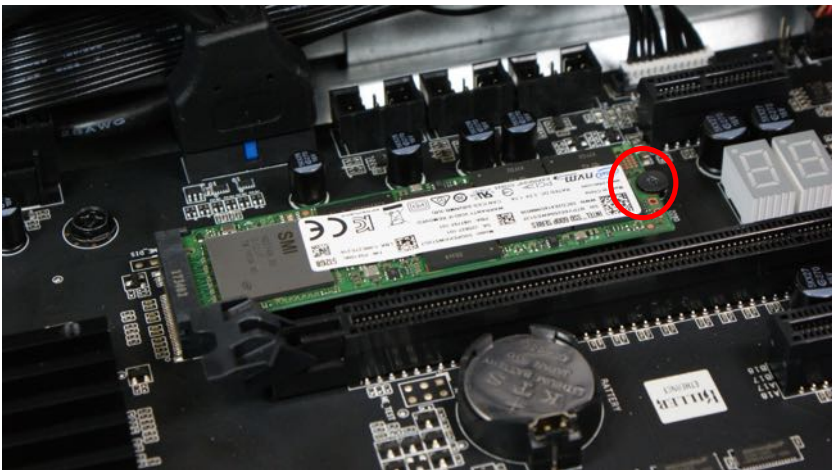


## Installing the M.2 SSD module

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. Secure the M.2 SSD module with one screw.



4. Replace the graphic board. See [Installing the graphic board on page 35](#).
5. Observe the [Post-installation instructions on page 6](#).

# 2 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><b>Provide overview of all features with quick adjustment</b></p> <ul style="list-style-type: none"> <li>• CPU/GPU/System health information</li> <li>• Fan speed control (Auto, Gaming and Silence)</li> <li>• Lighting profile</li> <li>• CPU overlocking (Normal, Faster and Turbo)</li> </ul>
Lighting	<p><b>Provide control and adjustment for the LEDs on Front Face, Left Side Face and Motherboard.</b></p> <ul style="list-style-type: none"> <li>• On/Off</li> <li>• Color: 9 basic colors (last one is rainbow color), 9 recent colors which user creates the color via More Color(palette) button).</li> <li>• Lighting Effects: None, Breathing, (Wave, Music, CPU temp of Front face)</li> <li>• Speed: Support Wave, CPU temp (Of Front face)</li> </ul>
Overclocking	<p><b>Provide CPU overclocking in 3 levels, Normal, Faster and Turbo level. And show the CPU loading, frequency, Max frequency.</b></p> <ul style="list-style-type: none"> <li>• The physical Turbo button will light on when OC level is Faster level of Turbo level.</li> <li>• Press physical Turbo button to switch OC level in Normal level (light off) or Turbo level (light on).</li> <li>• When resume from S3/S4/S5, PredatorSense will sync the OC level from physical Turbo button.</li> </ul>
Fan control	<p><b>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.</b></p> <ul style="list-style-type: none"> <li>• Custom fan speed only can control by 60 ~ 100% percentage.</li> </ul>

Category	Description
Monitoring	<p><b>Provide 3 tabs for CPU and GPU and System.</b></p> <ul style="list-style-type: none"><li>• Temperature in C/F</li><li>• Loading in %</li><li>• Frequency in MHz</li><li>• Voltage in V</li><li>• Fan speed in RPM</li><li>• Download/Upload in bytes/s of WIFI/Ethernet</li><li>• Usage in GB of RAM</li></ul>
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>