PRIME B365M-K

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## Safety information

## **Electrical safety**

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

## **Operation safety**

- Before installing the motherboard and adding components, carefully read all the manuals that came with the package.
- Before using the product, ensure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may be exposed to moisture.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

## About this guide

This user guide contains the information you need when installing and configuring the motherboard.

## How this guide is organized

This guide contains the following parts:

Chapter 1: Product introduction

This chapter describes the features of the motherboard and the new technology it supports. It includes descriptions of the switches, jumpers, and connectors on the motherboard.

Chapter 2: BIOS information

This chapter discusses changing system settings through the BIOS Setup menus.

#### Where to find more information

Refer to the following sources for additional information and for product and software updates.

#### 1. ASUS websites

The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information.

#### 2. Optional documentation

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

## Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



**DANGER/WARNING:** Information to prevent injury to yourself when completing a task.



**CAUTION:** Information to prevent damage to the components when completing a task



IMPORTANT: Instructions that you MUST follow to complete a task



NOTE: Tips and additional information to help you complete a task.

## **Typography**

| Bold text                                     | Indicates a menu or an item to select.   |
|---|--|
| Italics                                       | Used to emphasize a word or a phrase.  |
| <key></key>                                   | Keys enclosed in the less-than and greater-than sign means that you must press the enclosed key. |
|   | Example: <enter> means that you must press the Enter or Return key.</enter>                      |
| <key1> + <key2> + <key3></key3></key2></key1> | If you must press two or more keys simultaneously, the key names are linked with a plus sign (4) |

## **Package contents**

Check your motherboard package for the following items.

| Motherboard                                 | ASUS PRIME B365M-K motherboard |  |
|---|--------------------------------|--|
| Cables                                      | 2 x Serial ATA 6.0 Gb/s cables |  |
| Accessories                                 | 1 x I/O Shield                 |  |
| 1 x M.2 Anchor  Application DVD Support DVD |                                |  |
| Documentation                               | User Guide                     |  |
|   |                                |  |



If any of the above items is damaged or missing, contact your retailer.

## PRIME B365M-K specifications summary

|                 | Socket 1151 for 9th / 8th Gen Intel® Core™, Pentium® Gold, and Celeron® processors  |  |
|-----------------|---|--|
| CPU             | Supports Intel® 14nm CPU  |  |
| CPU             | Supports Intel® Turbo Boost Technology 2.0*   |  |
|                 | * Intel® Turbo Boost Technology 2.0 support depends on the CPU types.   |  |
|                 | ** Refer to <u>www.asus.com</u> for Intel <sup>®</sup> CPU support list.  |  |
| Chipset         | Intel® B365 Chipset   |  |
|                 | 2 x DIMMs, maximum 32 GB, DDR4 2666/ 2400/ 2133 MHz, non-ECC, un-buffered memory  |  |
|                 | Dual-channel memory architecture  |  |
| Memory          | Supports Intel® Extreme Memory Profile (XMP)  |  |
|                 | * The maximum memory frequency supported varies by processor.  ** DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel® |  |
|                 | 8th Gen 6-core or higher processors.  |  |
|                 | *** Refer to <u>www.asus.com</u> for the latest Memory QVL (Qualified Vendors List).  |  |
| Expansion slots | 1 x PCI Express 3.0/2.0 x16 slot (at x16 mode)  |  |
| Expansion siots | 2 x PCI Express 3.0/2.0 x1 slots  |  |
|                 | Integrated graphics processor - Intel® HD Graphics support  |  |
|                 | Multi-VGA output support: DVI-D and D-Sub ports   |  |
|                 | - Supports DVI-D with max. resolution of 1920 x 1200@60Hz   |  |
| Graphics        | - Supports D-Sub with max. resolution 1920 x 1200@60Hz  |  |
|                 | Supports Intel® InTru™ 3D/Quick Sync Video/Clear Video HD Technology/<br>Insider™   |  |
|                 | Maximum shared memory of 1024MB(for iGPU exclusively)   |  |
|                 | Intel® B365 Chipset with RAID 0, 1, 5, 10, and Intel® Rapid Storage<br>Technology support   |  |
| Storage         | <ul> <li>1 x M.2 Socket 3 with M Key, type 2242/ 2260/ 2280 storage devices<br/>support (SATA mode &amp; x4 PCle mode)*</li> </ul>          |  |
| Siturage        | - 6 x SATA 6.0 Gb/s ports (gray)  |  |
|                 | - Intel® Optane™ Memory Ready   |  |
|                 | * When a device in SATA mode is installed on the M.2 socket, SATA6G_1 port cannot be used.  |  |
| LAN             | Realtek® 8111H Gigabit LAN support LANGuard   |  |

(continued on the next page)

## PRIME B365M-K specifications summary

|                         | in Repositionations cultimary   |
|-------------------------|---|
|                         | Realtek® ALC887 8-channel* high definition audio CODEC  |
|                         | <ul> <li>LED-illuminated design: Brighten up your build with the gorgeous illuminated audio<br/>trace path.</li> </ul>  |
|                         | <ul> <li>Audio Shielding: Ensures precision analog/digital separation and greatly reduces<br/>multi-lateral interference</li> </ul>   |
| Audio                   | <ul> <li>Dedicated audio PCB layers: Separate layers for left and right channels to guard the<br/>quality of the sensitive audio signals</li> </ul>   |
|                         | <ul> <li>Premium Japanese audio capacitors: Provide warm, natural and immersive sound<br/>with exceptional clarity and fidelity.</li> </ul>   |
|                         | - Supports jack-detection and front panel jack-retasking  |
|                         | * Use a chassis with HD audio module in the front panel to support an 8-channel audio output.   |
|                         | Intel® B365 Chipset:  |
| USB                     | <ul> <li>6 x USB 3.1 Gen 1 (up to 5Gbps) ports (2 ports at mid-board; 4 ports at the back<br/>panel, blue, Type A)</li> </ul>   |
|                         | - 6 x USB 2.0/1.1 ports (4 ports at mid-board; 2 ports at the back panel)   |
|                         | ASUS 5X PROTECTION III  ASUS SafeSlot Core: Fortified PCIe Slot prevents damage  ASUS LANGuard: Protects against LAN surges, lightning strikes and static-electricity discharges!  ASUS Overvoltage Protection: World-class circuit-protecting power design  ASUS Stainless-Steel Back I/O: 3X corrosion-resistance for greater durability!  ASUS DIGI+ VRM: Premium components provide better power efficiency |
| ASUS unique<br>features | Superb Performance ASUS OptiMem - Improved DDR4 stability Q-Installer - Auto download driver and software, friendly for first PC builder M.2 onboard - The latest transfer technologies with up to 32Gb/s data transfer speeds ASUS EPU - EPU UEFI BIOS - Most advanced options with fast response time   |
|                         | i i   |
|                         | Gaming Scenario Audio Features - Audio that roars on the battlefield  |
|                         | ASUS Exclusive Features - ASUS Ai Charger - ASUS Al Suite 3 - ASUS PC Cleaner   |
|                         | EZ DIY  |
|                         | UEFI BIOS EZ Mode  - Featuring a friendly graphics user interface  - ASUS CrashFree BIOS 3  - ASUS EZ Flash 3   |
|                         | Q-Design - ASUS Q-DIMM  |

(continued on the next page)

## PRIME B365M-K specifications summary

|                          | Ouist Thermal Design   |  |
|--------------------------|--|--|
| ASUS quiet               | Quiet Thermal Design - ASUS Fan Xpert  |  |
| thermal solution         | - A303 r an Apert<br>- Stylish Fanless Design: PCH Heat-sink solution  |  |
|                          | 1 x PS/2 keyboard port (purple)  |  |
|                          | 1 x PS/2 mouse port (green)  |  |
|                          | 1 x DVI-D port   |  |
|                          | 1 x D-Sub port   |  |
| Back panel I/O ports     | · · · · · · · · · · · · · · · · · · ·  |  |
| ports                    | 1 x LAN (RJ-45) port   |  |
|                          | 4 x USB 3.1 Gen 1 (up to 5Gbps) Type A ports (blue)  |  |
|                          | 2 x USB 2.0/1.1 ports  |  |
|                          | 3-Jack 8-Channel Audio I/O ports   |  |
|                          | 1 x USB 3.1 Gen 1 (up to 5Gbps) connector supports additional 2 USB ports (19-pin)   |  |
|                          | 2 x USB 2.0/1.1 connectors support additional 4 USB ports  |  |
|                          | 6 x SATA 6.0 Gb/s connectors (gray)  |  |
|                          | 1 x M.2 Socket 3 (for M Key)   |  |
|                          | 1 x 4-pin CPU Fan connector for 4-pin (PWM mode) coolers control   |  |
| Internal I/O             | 1 x 4-pin Chassis Fan connector for 3-pin (DC mode) and 4-pin (PWM mode) coolers control   |  |
| connectors               | 1 x Front panel audio connector (AAFP)   |  |
|                          | 1 x System panel connector   |  |
|                          | 1 x S/PDIF out connector   |  |
|                          | 1 x Speaker connector  |  |
|                          | 1 x 24-pin EATX power connector  |  |
|                          | 1 x 8-pin EATX 12V power connector   |  |
|                          | 1 x COM connector  |  |
|                          | 1 x Clear CMOS jumper  |  |
| BIOS features            | 128 Mb Flash ROM, UEFI AMI BIOS, PnP, SM BIOS 3.1, ACPI 6.1, Multi-<br>language BIOS, ASUS EZ Flash 3, CrashFree BIOS 3, F6 Qfan Control, F3<br>My Favorites, Last Modified log, F12 PrintScreen, and ASUS DRAM SPD<br>(Serial Presence Detect) memory information |  |
| Manageability            | WOL by PME, PXE  |  |
| Support DVD              | Drivers  |  |
|                          | ASUS utilities   |  |
|                          | EZ Update  |  |
|                          | Anti-virus software (OEM version)  |  |
| Operating system support | Windows® 10 (64-bit)   |  |
| Form factor              | mATX form factor: 8.9 in. x 7.3 in. (22.6 cm x 18.5 cm)  |  |



Specifications are subject to change without notice.

## **Product introduction**



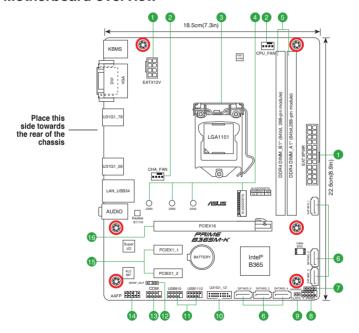
## Before you proceed

Take note of the following precautions before you install motherboard components or change any motherboard settings.



- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.

### Motherboard overview





Scan the QR code to get the detailed pin definitions.





#### ATX power connectors (24-pin EATXPWR, 8-pin EATX12V)

These connectors are for ATX power supply plugs. The power supply plugs are designed to fit these connectors in only one orientation. Find the proper orientation and push down firmly until the connectors completely fit.



- We recommend that you use an ATX 12V Specification 2.0-compliant power supply unit (PSU) with a minimum of 350W power rating. This PSU type has 24-pin and 8-pin power plugs.
- DO NOT forget to connect the 8-pin EATX +12V power plug. Otherwise, the system will not boot up.
- We recommend that you use a PSU with higher power output when configuring a system with more power-consuming devices or when you intend to install additional devices. The system may become unstable or may not boot up if the power is inadequate.



#### CPU and chassis fan connectors (4-pin CPU\_FAN, 4-pin CHA\_FAN)

Connect the fan cables to the fan connectors on the motherboard, ensuring that the black wire of each cable matches the ground pin of the connector.



Do not forget to connect the fan cables to the fan connectors. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan connectors! The CPU\_FAN connector supports a CPU fan of maximum 1A (12 W) fan power.



#### Intel® I GA1151 CPU socket

Install Intel® LGA1151 CPU into this surface mount LGA1151 socket, which is designed for the 9th / 8th Gen Intel® Core™, Pentium® Gold, and Celeron® processors.



For more details, refer to Central Processing Unit (CPU).



#### M.2 socket 3

This socket allows you to install M.2 (NGFF) SSD modules.





- This socket supports M Key and type 2242/ 2260/ 2280 storage devices.
- When a device in SATA mode is installed on the M.2 socket, SATA6G\_1 port cannot be used.



#### **DDR4 DIMM slots**

Install 2 GB, 4 GB, 8 GB, and 16 GB unbuffered non-ECC DDR4 DIMMs into these DIMM sockets.



For more details, refer to System memory.

- 6
- Intel® B365 Serial ATA 6.0Gb/s connectors (7-pin SATA6G\_1~6)

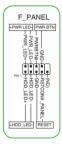
These connectors connect to Serial ATA 6.0 Gb/s hard disk drives via Serial ATA 6.0 Gb/s signal cables.

- 7
- Speaker connector (4-pin SPEAKER)

This 4-pin connector is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

- 8
- System panel connector (10-1 pin F\_PANEL)

This connector supports several chassis-mounted functions.



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#### Clear RTC RAM (2-pin CLRTC)

This header allows you to clear the CMOS RTC RAM data of the system setup information such as date, time, and system passwords.



#### To erase the RTC RAM:

- 1. Turn OFF the computer and unplug the power cord.
- Use a metal object such as a screwdriver to short the two pins.
- 3. Plug the power cord and turn ON the computer.
- Hold down the < Del> key during the boot process and enter BIOS setup to re-enter data.



If the steps above do not help, remove the onboard battery and short the two pins again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery.



#### USB 3.1 Gen 1 (up to 5Gbps) connector (20-1 pin U31G1\_12)

Connect a USB 3.1 Gen 1 module to this connector for additional USB 3.1 Gen 1 front or rear panel ports. This connector complies with USB 3.1 Gen 1 specifications and provide faster data transfer speeds of up to 5 Gbps, faster charging time for USB-chargeable devices, optimized power efficiency, and backward compatibility with USB 2.0.

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## USB 2.0 connectors (10-1 pin USB910, USB1112)

These connectors are for USB 2.0 ports. Connect the USB module cable to any of these connector, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specifications and supports up to 480Mbps connection speed.

## Digital audio connector (4-1 pin SPDIF\_OUT)

This connector is for an additional Sony/Philips Digital Interface (S/PDIF) port. Connect the S/PDIF Out module cable to this connector, then install the module to a slot opening at the back of the system chassis.

## Serial port connector (10-1 pin COM) This connector is for a carial (COM) part. Connector is for a carial (COM) part.

This connector is for a serial (COM) port. Connect the serial port module cable to this connector, then install the module to a slot opening at the back of the system chassis.

### Front panel audio connector (10-1 pin AAFP)

This connector is for a chassis-mounted front panel audio I/O module that supports HD Audio audio standard. Connect one end of the front panel audio I/O module cable to this connector.



14)

- We recommend that you connect a high-definition front panel audio module to this
  connector to avail of the motherboard's high-definition audio capability.
- If you want to connect a high-definition front panel audio module to this connector, set the Front Panel Type item in the BIOS setup to [HD Audio]. By default, this connector is set to [HD Audio].

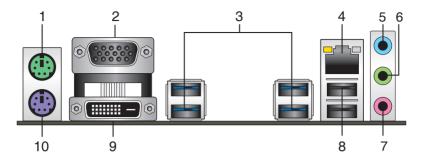
## PCI Express 3.0/2.0 x1 slots

This motherboard has two PCI Express 3.0/2.0 x1 slots that support PCI Express 3.0/2.0 x1 network cards, SCSI cards, and other cards that comply with the PCI Express specifications.

## 16 PCI Express 3.0/2.0 x16 slot

This motherboard has a PCI Express 3.0/2.0 x16 slot that supports PCI Express 3.0/2.0 x16 graphic cards complying with the PCI Express specifications.

## Rear panel connectors



- 1. PS/2 Mouse port (green). This port connects to a PS/2 mouse.
- Video Graphics Adapter (VGA) port. This 15-pin port is for a VGA monitor or other VGA-compatible devices.
- USB 3.1 Gen 1 (up to 5Gbps) ports (blue, Type A). These 9-pin Universal Serial Bus (USB) ports are for USB 3.1 Gen 1 devices.



- USB 3.1 Gen 1 devices can only be used for data storage.
- Due to the design of the Intel® 300 series chipset, all USB devices connected to the USB 2.0 and USB 3.1 Gen 1 ports are controlled by the xHCl controller. Some legacy USB devices must update their firmware for better compatibility.
- We strongly recommend that you connect USB 3.1 Gen 1 devices to USB 3.1 Gen 1 ports for faster and better performance from your USB 3.1 Gen 1 devices.
- LAN (RJ-45) port. This port allows Gigabit connection to a Local Area Network (LAN) through a network hub.



#### LAN port LED indications

| Activity/Link LED             |                               | Speed LED |                    |
|-------------------------------|-------------------------------|-----------|--------------------|
| Status                        | Description                   |           | Description        |
| Off                           | No link                       | OFF       | 10Mbps connection  |
| Orange                        | Linked                        | ORANGE    | 100Mbps connection |
| Orange (Blinking)             | Data activity                 | GREEN     | 1Gbps connection   |
| Orange (Blinking then steady) | Ready to wake up from S5 mode | _         | _                  |

- Line In port (light blue). This port connects to the tape, CD, DVD player, or other audio sources.
- Line Out port (lime). This port connects to a headphone or a speaker. In the 4.1, 5.1 and 7.1-channel configurations, the function of this port becomes Front Speaker Out.

7. **Microphone port (pink)**. This port connects to a microphone.



Refer to the audio configuration table for the function of the audio ports in 2.1, 4.1, 5.1, or 7.1-channel configuration.

## Audio 2.1, 4.1, 5.1 or 7.1-channel configuration

| Port                       | Headset<br>2.1-channel | 4.1-channel       | 5.1-channel       | 7.1-channel       |
|----------------------------|------------------------|-------------------|-------------------|-------------------|
| Light Blue<br>(Rear panel) | Line In                | Rear Speaker Out  | Rear Speaker Out  | Rear Speaker Out  |
| Lime (Rear panel)          | Line Out               | Front Speaker Out | Front Speaker Out | Front Speaker Out |
| Pink (Rear panel)          | Mic In                 | Mic In            | Bass/Center       | Bass/Center       |
| Lime (Front panel)         | _                      | _                 | _                 | Side Speaker Out  |



#### To configure a 7.1-channel audio output:

Use a chassis with HD audio module in the front panel to support a 7.1-channel audio output.

- USB 2.0 ports These 4-pin Universal Serial Bus (USB) ports are for USB 2.0/1.1 devices.
- 9. **DVI-D port.** This port is for any DVI-D compatible device.



 $\ensuremath{\mathsf{DVI-D}}$  can not be converted to output from RGB Signal to CRT and is not compatible with  $\ensuremath{\mathsf{DVI-I}}$  .

10. PS/2 Keyboard port (purple). This port connects to a PS/2 keyboard.

## **Central Processing Unit (CPU)**

This motherboard comes with a surface mount LGA1151 socket designed for the 9th / 8th Gen Intel® Core™, Pentium® Gold, and Celeron® processors.

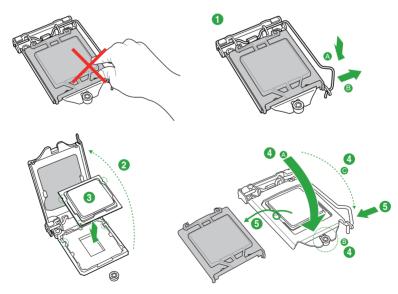


Unplug all power cables before installing the CPU.



- Ensure that you install the correct CPU designed for the LGA1151 socket only. DO NOT install a CPU designed for LGA1150, LGA1155 and LGA1156 sockets on the LGA1151 socket.
- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the PnP cap/socket contacts/motherboard components.
- Keep the cap after installing the motherboard. ASUS will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the LGA1151 socket.
- The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/incorrect removal of the PnP cap.

## Installing the CPU





Apply the Thermal Interface Material to the CPU heatsink and CPU before you install the heatsink and fan if necessary.

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## System memory

This motherboard comes with two Double Data Rate 4 (DDR4) Dual Inline Memory Module (DIMM) sockets. The figure illustrates the location of the DDR4 DIMM sockets:



| Channel   | Sockets  |
|-----------|----------|
| Channel A | DIMM_A1* |
| Channel B | DIMM_B1* |

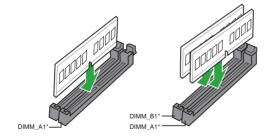


- You may install varying memory sizes in Channel A and Channel B. The system
  maps the total size of the lower-sized channel for the dual-channel configuration. Any
  excess memory from the higher-sized channel is then mapped for single-channel
  operation.
- Always install DIMMs with the same CAS latency. For optimal compatibility, we
  recommend that you install memory modules of the same version or date code (D/C)
  from the same vendor. Check with the retailer to get the correct memory modules.
- DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel® 9th / 8th Gen 6-core or higher processors.
- Memory modules with memory frequency higher than 2133 MHz and its corresponding timing or the loaded X.M.P. Profile is not the JEDEC memory standard. The stability and compatibility of these memory modules depend on the CPU's capabilities and other installed devices.

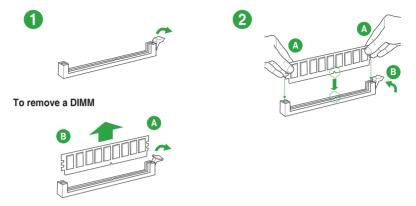


- The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module.
   Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.
- Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List)

#### **Recommended memory configurations**



## Installing a DIMM



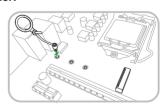
## M.2 Anchor Installation

The M.2 Anchor is a tool-less design to easily fasten and secure your M.2 SSD card to your motherboard without using extra tools.

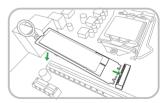


## To install the M.2 SSD card using the M.2 Anchor:

 Locate the M.2 mounting hole on your motherboard and firmly insert the M.2 Anchor into the hole.

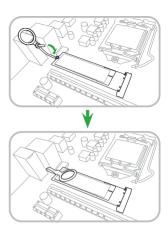


 Insert the M.2 SSD card into the M.2 slot. The notch at the end of the M.2 SSD card shall align with the rod of the M.2 Anchor.



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3. Firmly insert the pin on the M.2 Anchor into the hole on itself.



## To uninstall the M.2 SSD card:

- 1. Pull up the ring on the M.2 Anchor until it is separated from the hole.
- 2. Remove the M.2 SSD card from the M.2 slot.



## **BIOS** information





- Scan the QR code to view the BIOS update guide.
- Before using the ASUS CrashFree BIOS 3 utility, rename the BIOS file in the removable device into PB365MK.CAP.



## **BIOS setup program**

Use the BIOS Setup program to update the BIOS or configure its parameters. The BIOS screens include navigation keys and brief online help to guide you in using the BIOS Setup program.

#### **Entering BIOS Setup at startup**

#### To enter BIOS Setup at startup:

Press <Delete> or <F2> during the Power-On Self Test (POST). If you do not press <Delete> or <F2>. POST continues with its routines.

#### **Entering BIOS Setup after POST**

#### To enter BIOS Setup after POST:

Press <Ctrl>+<Alt>+<Del> simultaneously.

Press the reset button on the system chassis.

Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.



Using the power button, reset button, or the <Ctrl>+<Alt>+<Del> keys to force reset from a running operating system can cause damage to your data or system. We recommend you always shut down the system properly from the operating system.



- The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.
- Visit the ASUS website at <u>www.asus.com</u> to download the latest BIOS file for this motherboard.
- If the system becomes unstable after changing any BIOS setting, load the default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu or press hotkey F5.
- If the system fails to boot after changing any BIOS setting, try to clear the CMOS and
  reset the motherboard to the default value. See section Motherboard overview for
  information on how to erase the RTC RAM.

#### BIOS menu screen

The BIOS setup program can be used under two modes: **EZ Mode** and **Advanced Mode**. Press <F7> to change between the two modes.

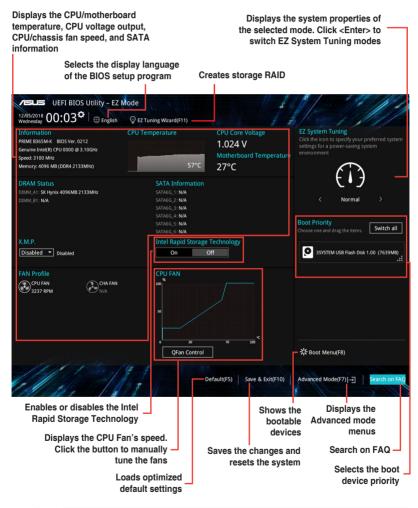
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### **EZ Mode**

By default, the EZ Mode screen appears when you enter the BIOS setup program. The EZ Mode provides you an overview of the basic system information, and allows you to select the display language, system performance mode, fan profile and boot device priority. To access the Advanced Mode, click **Advanced Mode(F7)** or press <F7>.



The default screen for entering the BIOS setup program can be changed. Refer to the **Setup Mode** item under the **Boot** menu for details.





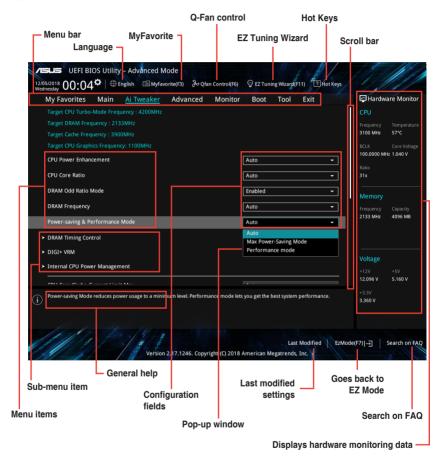
The boot device options vary depending on the devices you installed to the system.

### **Advanced Mode**

The Advanced Mode provides advanced options for experienced end-users to configure the BIOS settings. The figure below shows an example of the **Advanced Mode**. Refer to the following sections for the detailed configurations.



To access the EZ Mode, click **EzMode(F7)** or press <F7>.



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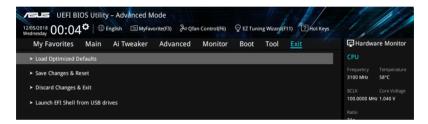
#### Search on FAQ

Move your mouse over this button to show a QR code. Scan this QR code with your mobile device to connect to the ASUS BIOS FAQ web page. You can also scan the QR code below.



### Exit menu

The Exit menu items allow you to load the optimal default values for the BIOS items, and save or discard your changes to the BIOS items.



#### **Load Optimized Defaults**

This option allows you to load the default values for each of the parameters on the Setup menus. When you select this option or if you press <F5>, a confirmation window appears. Select OK to load the default values.

#### Save Changes & Reset

Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved. When you select this option or if you press <F10>, a confirmation window appears. Select OK to save changes and exit.

#### **Discard Changes and Exit**

This option allows you to exit the Setup program without saving your changes. When you select this option or if you press <Esc>, a confirmation window appears. Select OK to discard changes and exit.

#### Launch EFI Shell from USB drives

This option allows you to attempt to launch the EFI Shell application (shellx64.efi) from one of the available USB devices.

## **Appendix**

#### **Notices**

## **FCC Compliance Information**

Responsible Party: Asus Computer International

Address: 48720 Kato Rd., Fremont, CA 94538, USA

Phone / Fax No: (510)739-3777 / (510)608-4555

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

# Compliance Statement of Innovation, Science and Economic Development Canada (ISED)

This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-3(B)/NMB-3(B)

# Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-3(B)/NMB-3(B)

### **VCCI: Japan Compliance Statement**

#### Class B ITE

この装置は、クラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

VCCI-B

## **KC: Korea Warning Statement**

B급 기기 (가정용 방송통신기자재)

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

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#### **REACH**

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at http://csr.asus.com/english/REACH.htm.



DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.



DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

## **ASUS Recycling/Takeback Services**

ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials. Please go to <a href="http://csr.asus.com/english/Takeback.htm">http://csr.asus.com/english/Takeback.htm</a> for detailed recycling information in different regions.

## Regional notice for California



## WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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English ASUSTeK Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of related Directives. Full text of EU declaration of conformity is available at: www.asus.com/support

Français AsusTek Computer Inc. déclare par la présente que cet appareil est conforme aux critères essentiels et autres clauses pertinentes des directives concernées. La déclaration de conformité de l'UE peut être téléchargée à partir du site Internet suivant: <a href="https://www.asus.com/support">www.asus.com/support</a>

Deutsch ASUSTeK Computer Inc. erklärt hiermit, dass dieses Gerät mit den wesentlichen Anforderungen und anderen relevanten Bestimmungen der zugehörigen Richtlinien übereinstimmt. Der gesamte Text der EU-Konformitätserklärung ist verfügbar unter, www.asus.com/support

Italiano ASUSTeK Computer Inc. con la presente dichiara che questo dispositivo è conforme ai requisiti essenziali e alle altre disposizioni pertinenti con le direttive correlate. Il testo completo della dichiarazione di conformità UE è disponibile all'indirizzo: <a href="https://www.asus.com/support">www.asus.com/support</a>

Русский Компания ASUS заявляет, что это устройство соответствует основным требованиям и другим соответствующим условиям соответствующих директив. Подробную информацию, пожалуйста, смотрите на <u>www.asus.com/support</u>

Български С настоящото ASUSTEK Computer Inc. декларира, че това устройство е в съответствие със съществените изисквания и другите приложими постановления на свързаните директиви. Пълният текст на декларацията за съответствие на ЕС е достъпна на адрес: www.asus.com/support

Hrvatski ASUSTeK Computer Inc. ovim izjavljuje da je ovaj uređaj sukladan s bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. Cijeli tekst EU izjave o sukladnosti dostupan je na: www.asus.com/support

Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že toto zařízení splňuje základní požadavky a další příslušná ustanovení souvisejících směrnic. Plné znění prohlášení o shodě EU je k dispozici na adrese: www.asus.com/support

Dansk ASUSTEK Computer Inc. erklærer hermed, at denne enhed er i overensstemmelse med hovedkravene og andre relevante bestemmelser i de relaterede direktiver. Hele EU-overensstemmelseserklæringen kan findes på:

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Eesti Käesolevaga kinnitab ASUSTeK Computer Inc, et see seade vastab asjakohaste direktiivide oluliste nõuetele ja teistele asjassepuutuvatele sätetele. EL vastavusdeklaratsiooni täielik tekst on saadaval järgmisel aadressil: www.asus.com/suoport

Suomi ASUSTeK Computer Inc. ilmoittaa täten, että tämä laite on asiaankuuluvien direktiivien olennaisten vaatimusten ja muiden tätä koskevien säädösten mukainen. EU-yhdenmukaisuusilmoituksen koko teksti on luettavissa osoitteessa: www.asus.com/support

**Ελληνικά** Με το παρόν, η AsusTek Computer Inc. δηλώνει ότι αυτή η συσκεινή συμμορφώνεται με τις θεμελιώδεις απαιτήσεις και άλλες σχετικές διατάξεις των Οδηγιών της ΕΕ.Το πλήρες κείμενο της δήλωσης συμβατότητας είναι διαθέσιμο στη διεύθυνση: <u>www.asus.com/support</u>

Magyar Az ASUSTeK Computer Inc. ezennel kijelenti, hogy ez az eszköz megfelel a kapcsolódó Irányelvek lényeges követelményeinek és egyéb vonatkozó rendelkezéseinek. Az EU megfelelőségi nyilatkozat teljes szövege innen letölthető: <a href="https://www.asus.com/support">www.asus.com/support</a>

Latviski ASUSTEK Computer Inc. ar šo paziņo, ka šī ierīce atbilst saistīto Direktīvu būtiskajām prasībām un citiem citiem saistošajiem nosacijumiem. Pilns ES atbilstības paziņojuma teksts pieejams šeit: <u>www.asus.com/support</u>

Lietuvių "ASUSTeK Computer Inc." šiuo tvirtina, kad šis įrenginys atitinka pagrindinius reikalavimus ir kitas svarbias susijusių direktyvų nuostatas. Visą ES atitikties deklaracijos teksta galima rasti: www.asus.com/support

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Polski Firma ASUSTeK Computer Inc. niniejszym oświadcza, że urządzenie to jest zgodne z zasadniczymi wymogami i innymi właściwymi postanowieniami powiązanych dyrektyw. Pelny tekst deklaracji zgodności UE jest dostępny pod adresem: <u>www.asus.com/support</u>

Português A ASUSTEK Computer Inc. declara que este dispositivo está em conformidade com os requisitos essenciais e outras disposições relevantes das Diretivas relacionadas. Texto integral da declaração da UE disponível em: <a href="https://www.asus.com/support">www.asus.com/support</a>

Română ASUSTEK Computer Inc. declară că acest dispozitiv se conformează cerințelor esențiale și altor prevederi relevante ale directivelor conexe. Textul complet al declarației de conformitate a Uniunii Europene se găsește la: www.asus.com/support

Srpski ASUSTEK Computer Inc. ovim izjavljuje da je ovaj uređaj u saglasnosti sa osnovnim zahtevima i drugim relevantnim odredbama povezanih Direktiva. Pun tekst EU deklaracije o usaglašenosti je dostupan da adresi: www.asus.com/supnort

Slovensky Spoločnosť ASUSTeK Computer Inc. týmto vyhlasuje, že toto zariadenie vyhovuje základným požiadavkám a ostatým príslušným ustanoveniam príslušných smerníc. Celý text vyhlásenia o zhode pre štáty EÚ ie dostupný na adrese: www.asus.com/support

Slovenščina ASUSTeK Computer Inc. izjavlja, da je ta naprava skladna z bistvenimi zahtevami in drugimi ustreznimi določbami povezanih direktiv. Celotno besedilo EU-izjave o skladnosti je na voljo na spletnem mestu: www.asus.com/suoport

Español Por la presente, ASUSTEK Computer Inc. declara que este dispositivo cumple los requisitos básicos y otras disposiciones pertinentes de las directivas relacionadas. El texto completo de la declaración de la UE de conformidad está disponible en: www.asus.com/support

Svenska ASUSTeK Computer Inc. förklarar härmed att denna enhet överensstämmer med de grundläggande kraven och andra relevanta föreskrifter i relaterade direktiv. Fulltext av EU-försäkran om överensstämmelse finns på: <a href="https://www.asus.com/support">www.asus.com/support</a>

Українська ASUSTEK Computer Inc. заявляє, що цей пристрій відповідає основним вимогам та іншим відповідним положенням відповідних Директив. Повний текст декларації відповідності стандартам ЄС доступний из: <u>www.asus.com/support</u>

Türkçe AsusTek Computer Inc., bu aygıtın temel gereksinimlerle ve ilişkili Yönergelerin diğer ilgili koşullarıyla uyumlu olduğunu beyan eder. AB uygunluk bildiriminin tam metni şu adreste bulunabilir: www.asus.com/support

**Bosanski** ASUSTEK Computer Inc. ovim izjavljuje da je ovaj uređaj usklađen sa bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. Cijeli tekst EU izjave o usklađenosti dostupan je na: <a href="www.asus.com/support">www.asus.com/support</a>

Appendix A-4

### **ASUS** contact information

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Online support <a href="http://gr.asus.com/techserv">http://gr.asus.com/techserv</a>

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