



**EX-B365M-V**

**ASUS<sup>®</sup>**

**Motherboard**



E15141  
First Edition  
December 2018

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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>

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.

<Key1> + <Key2> + <Key3>

If you must press two or more keys simultaneously, the key names are linked with a plus sign (+).



## Package contents

Check your motherboard package for the following items.

|                        |                                   |
|------------------------|-----------------------------------|
| <b>Motherboard</b>     | ASUS EX-B365M-V motherboard       |
| <b>Accessories</b>     | 1 x I/O Shield<br>2 x SATA cables |
| <b>Application DVD</b> | 1 x Support DVD                   |
| <b>Documentation</b>   | User Guide                        |



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

## EX-B365M-V specifications summary

|                        |  |
|------------------------|--|
| <b>CPU</b>             | LGA1151 socket for 9th / 8th Generation Intel® Core™, Pentium® Gold and Celeron® processors<br>Supports 14nm CPU<br>Supports Intel® Turbo Boost Technology 2.0*<br>* The Intel® Turbo Boost Technology 2.0 support depends on the CPU types.<br>** Supports up to 65W CPUs. For more details, please refer to <a href="http://www.asus.com">www.asus.com</a> for Intel® CPU support list.  |
| <b>Chipset</b>         | Intel® B365 Chipset  |
| <b>Memory</b>          | 2 x DIMMs, max. 32 GB, DDR4 2133/2400/2666 MHz, non-ECC, un-buffered memory<br>Dual-channel memory architecture<br>Supports Intel® Extreme Memory Profile (XMP)<br>* The maximum memory frequency supported varies by processor.<br>** Hyper DIMM support is subject to the physical characteristics of individual CPUs.<br>*** Refer to <a href="http://www.asus.com">www.asus.com</a> for the Memory QVL (Qualified Vendors List). |
| <b>Graphics</b>        | Integrated Graphics Processor - Intel® HD Graphics support<br>VGA output support: HDMI<br>- Supports HDMI 1.4b with max. resolution 4096 x 2160@30Hz<br>- Supports InTru™ 3D/Quick Sync Video/Clear Video HD Technology/Insider™<br>Maximum shared memory of 1024 MB   |
| <b>Expansion slots</b> | 1 x PCI Express 3.0/2.0 x16 slot (@ x16 mode)<br>2 x PCI Express 3.0 x1 slots  |
| <b>Audio</b>           | Realtek ALC887 8-channel High Definition Audio CODEC<br>* Use a chassis with HD audio module in the front panel to support an 8-channel audio output.  |
| <b>Storage</b>         | Intel® B365 Chipset<br>- 4 x Serial ATA 6.0 Gb/s connectors  |
| <b>LAN</b>             | Realtek® RTL8111H Gigabit LAN  |
| <b>USB</b>             | 6 x USB 3.1 Gen 1 ports (2 ports at mid-board, 4 ports at back panel)<br>6 x USB 2.0/1.1 ports (4 ports at mid-board, 2 ports at back panel)   |

(continued on the next page)

## EX-B365M-V specifications summary

|                      |   |
|----------------------|---|
| ASUS unique features | <b>Non-stop Durability</b><br><b>Luminous Anti-moisture coating</b> <ul style="list-style-type: none"><li>- Outstanding protection against moisture and corrosion</li></ul> <b>USBGuard</b> <ul style="list-style-type: none"><li>- 120% higher voltage tolerance</li></ul> <b>ASUS 5X Protection III</b> <ul style="list-style-type: none"><li>- ASUS SafeSlot Core - Fortified PCIe slot prevents damage</li><li>- ESD Guard- Electrostatic discharge protection</li><li>- ASUS Overvoltage protection - World-class circuit-protecting power design</li><li>- ASUS DIGI+ VRM - Stable power supply</li><li>- ASUS stainless steel back I/O - 3X more durable</li></ul> |
|                      | <b>Non-Stop Challenger</b><br><b>ASUS iCafe Labs Certified</b> <ul style="list-style-type: none"><li>- Proven compatibility with diskless solution</li></ul>  |
|                      | <b>Non-stop Gaming</b><br><b>Audio features</b> <ul style="list-style-type: none"><li>- Separated layers for left and right tracks to ensure both channels delivering the consistent and equal quality</li><li>- Premium Japanese audio capacitors provide warm, natural and immersive sound with exceptional clarity and fidelity.</li><li>- Precision analog/digital separation block electromagnetic interference from the motherboard to provide cleaner audio</li></ul>  |
|                      | <b>EZ DIY</b><br><b>ASUS Q-Design</b> <ul style="list-style-type: none"><li>- ASUS Q-Slot</li><li>- ASUS Q-DIMM</li></ul>   |
| Rear panel I/O ports | 1 x PS/2 keyboard port (purple)<br>1 x PS/2 mouse port (green)<br>1 x LAN (RJ-45) port<br>4 x USB 3.1 Gen 1 ports<br>2 x USB 2.0/1.1 ports<br>1 x HDMI port<br>3 x Audio jacks support 8-channel audio output   |

(continued on the next page)

## EX-B365M-V specifications summary

|                            |  |
|----------------------------|--|
| <b>Internal connectors</b> | 2 x USB 2.0/ 1.1 connectors support additional 4 USB 2.0/ 1.1 ports<br>1 x USB 3.1 Gen 1 connector supports additional 2 USB 3.1 Gen 1 ports<br>4 x SATA 6.0Gb/s connectors<br>1 x Chassis fan connector<br>1 x CPU fan connector<br>1 x Front panel audio connector<br>1 x 24-pin EATX power connector<br>1 x 8-pin EATX 12V power connector<br>1 x Speaker header<br>1 x Clear CMOS jumper (2 pin)<br>1 x System panel connector<br>1 x COM Debug header (6-1 pin) |
| <b>BIOS features</b>       | 128 Mb Flash ROM, UEFI AMI BIOS, PnP, SM BIOS 3.1, ACPI 6.1, Multi-language BIOS   |
| <b>Manageability</b>       | WOL, PXE   |
| <b>Support DVD</b>         | Drivers  |
| <b>OS support</b>          | Windows® 10 (64-bit)   |
| <b>Form factor</b>         | uATX Form Factor, 8.9" x 7.0" (22.6cm x 17.8cm)  |



Specifications are subject to change without notice.



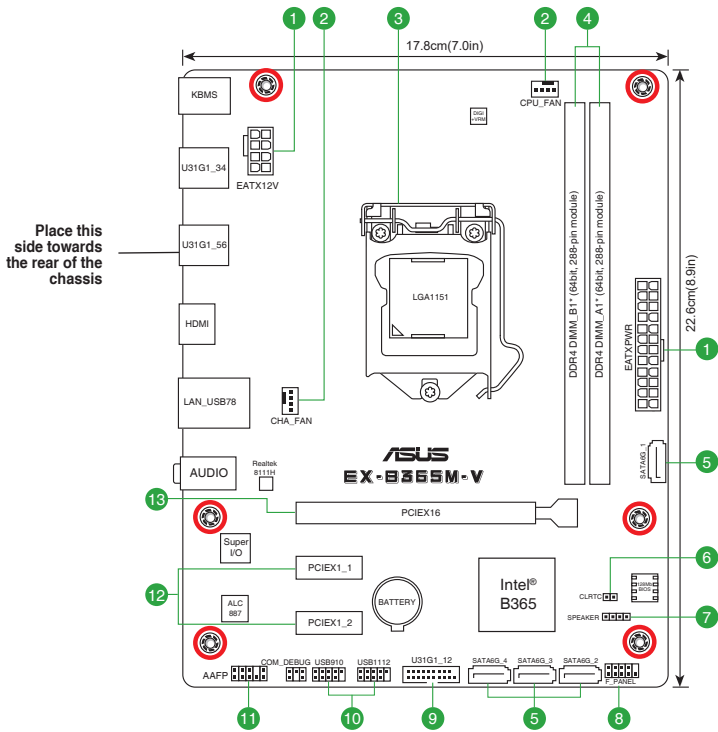
# Product introduction

# 1

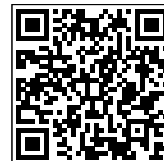
## Motherboard overview



- 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.
- Unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage to motherboard components.



Scan the QR code to get the detailed pin definitions.



## 1 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.



- For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12 V Specification 2.0 (or later version) and provides a minimum power of 350 W.
- DO NOT forget to connect the 4-pin/ 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.
- If you are uncertain about the minimum power supply requirement for your system, refer to the Recommended Power Supply Wattage Calculator at <http://support.asus.com/PowerSupplyCalculator/PSCalculator.aspx?SLanguage=en-us> for details.

## 2 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.

## 3 Intel® LGA1151 CPU socket

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



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

## 4 DDR4 DIMM slots

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



For more details, refer to **System memory**.

## 5 Intel® B365 Serial ATA 6.0Gb/s connectors (7-pin SATA6G\_1~4)

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

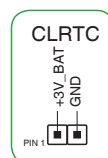


## 6 Clear RTC RAM (2-pin CLRTC)

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.
2. Use a metal object such as a screwdriver to short the two pins.
3. Plug the power cord and turn ON the computer.
4. 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.

## 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.

## 9 USB 3.1 Gen1 connector (20-1 pin U31G1\_12)

Connect a USB 3.1 Gen1 module to this connector for additional USB 3.1 Gen1 front or rear panel ports. This connector complies with USB 3.1 Gen1 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.

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

Connect a USB module cable to any of these connectors, 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.

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

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



- 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].



12

**PCI Express 3.0/2.0 x1 slots**

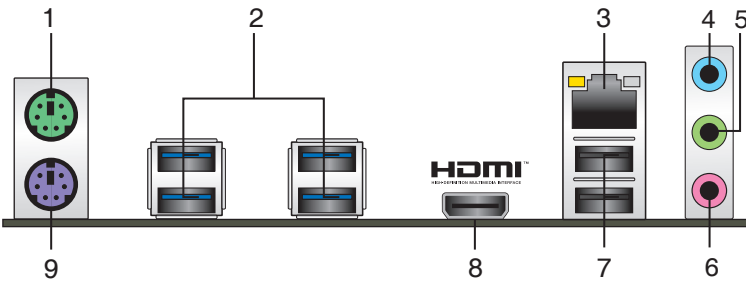
This motherboard supports PCI Express 3.0/2.0 x1 network cards, SCSI cards, and other cards that comply with the PCI Express specifications.

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**PCI Express 3.0/2.0 x16 slot**

This motherboard has one 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**



- PS/2 mouse port (green).** This port is for a PS/2 mouse.
- USB 3.1 Gen1 ports.** These 9-pin Universal Serial Bus (USB) ports are for USB 3.1 Gen1 devices.

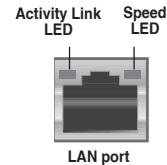


- USB 3.1 Gen1 devices can only be used for data storage.
- We strongly recommend that you connect USB 3.1 Gen1 devices to USB 3.1 Gen1 ports for faster and better performance from your USB 3.1 Gen1 devices.
- Due to the design of the Intel® 300 series chipset, all USB devices connected to the USB 2.0 and USB 3.1 Gen1 ports are controlled by the xHCI controller. Some legacy USB devices must update their firmware for better compatibility.

- 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                   | Status    | 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 | —         | —                  |



4. **Line In port (light blue).** This port connects the tape, CD, DVD player, or other audio sources.
5. **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.
6. **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 (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.

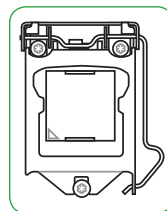
7. **USB 2.0 ports.** These 4-pin Universal Serial Bus (USB) ports are for USB 2.0/1.1 devices.
8. **HDMI ports.** This port is for a High-Definition Multimedia Interface (HDMI) connector, and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content.
9. **PS/2 keyboard port (purple).** This port is for a PS/2 keyboard.

## Central Processing Unit (CPU)

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

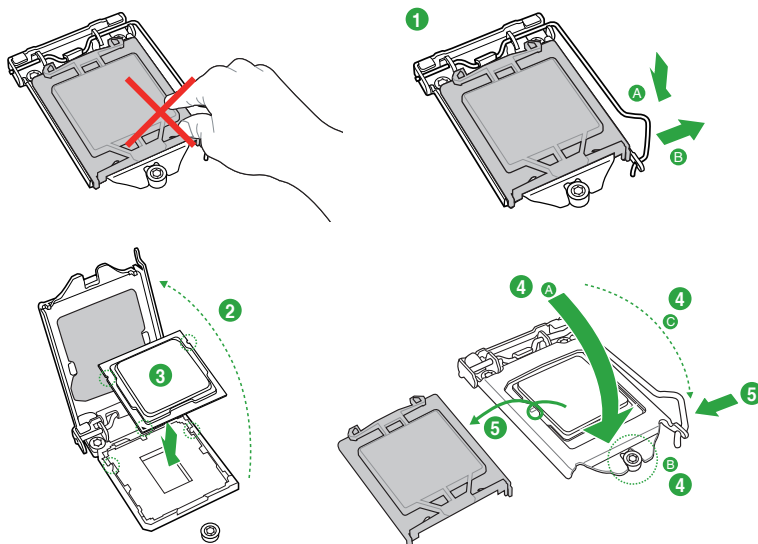


Unplug all power cables before installing the CPU.



- 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.

# System memory

## Overview

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.



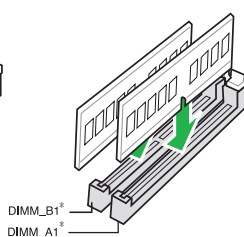
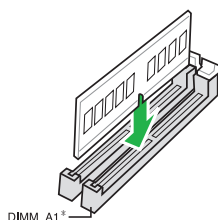
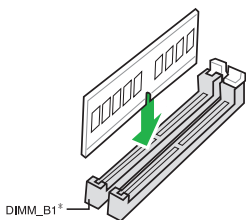
- According to Intel® CPU spec, DIMM voltage below 1.35V is recommended to protect the CPU.
- Due to the memory address limitation on 32-bit Windows® OS, when you install 4GB or more memory on the motherboard, the actual usable memory for the OS can be about 3GB or less. For effective use of memory, we recommend that you do any of the following:
  - Use a maximum of 3GB system memory if you are using a 32-bit Windows® OS.
  - Install a 64-bit Windows® OS if you want to install 4GB or more on the motherboard.
  - For more details, refer to the Microsoft® support site at <http://support.microsoft.com/kb/929605/en-us>.
- 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.
- For system stability, use a more efficient memory cooling system to support a full memory load (2 DIMMs).
- Refer to [www.asus.com](http://www.asus.com) for the latest Memory QVL (Qualified Vendors List)

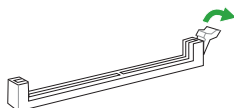


## Recommended memory configurations

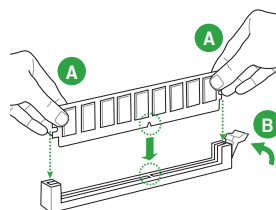


## Installing a DIMM

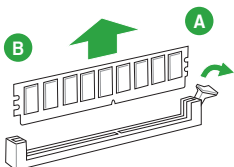
1



2



## To remove a DIMM





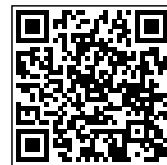


# BIOS information

# 2



Scan the QR code to view the BIOS update guide.



## 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 [www.asus.com](http://www.asus.com) 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.

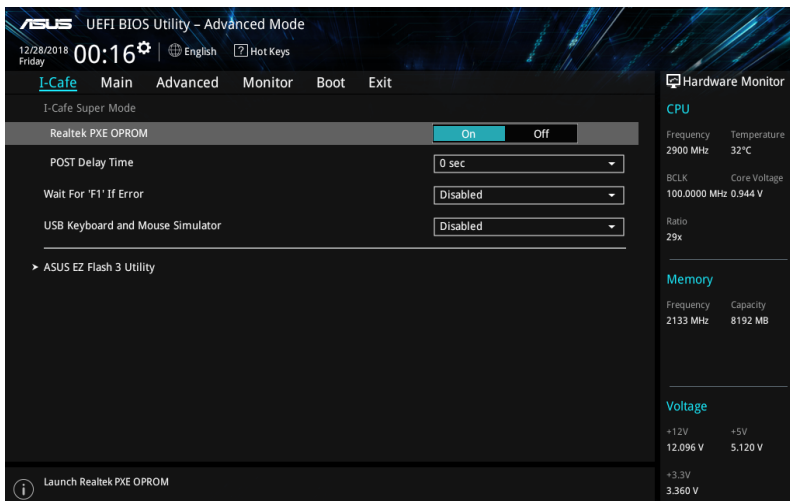
## BIOS menu screen

The BIOS setup program can be used under the **Advanced Mode**.



## I-Cafe

The items in this menu allows you to configure some quick settings for the I-Cafe feature.



### Realtek PXE OPROM

This item allows you to enable or disable the PXE OptionRom of the Realtek LAN controller.

### POST Delay Time

This item allows you to select the desired additional POST waiting time to easily enter the BIOS setup. You can only execute the POST delay time during Normal Boot. The values range from 0 to 10 seconds.



This feature will only work under normal boot.

### Wait for 'F1' If Error

When this item is set to [Enabled], the system waits for the F1 key to be pressed when error occurs.

### USB Keyboard and Mouse Simulator

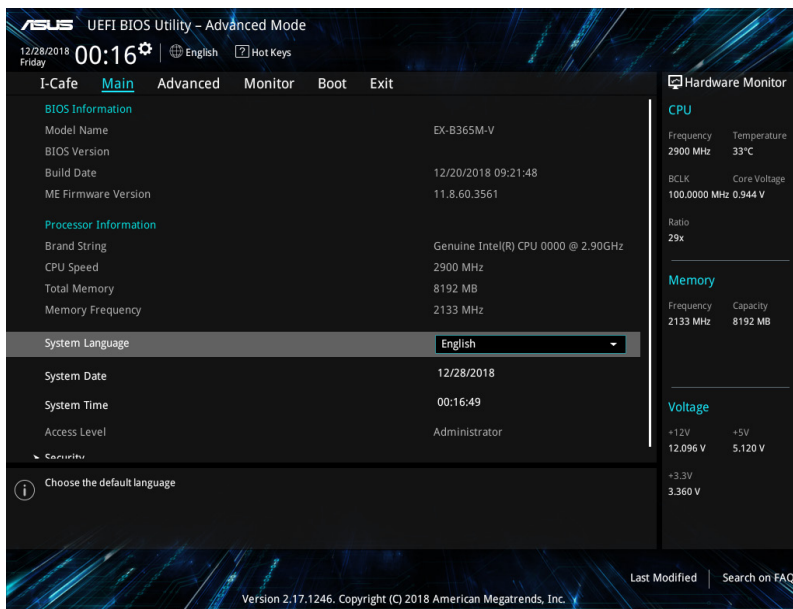
This item allows you to simulate the USB keyboard and mouse to PS/2 module in Windows® 7. Ensure to install the USB driver in your system before disabling this item.

### ASUS EZ Flash 3 Utility

Allows you to run ASUS EZ Flash 3. Press [Enter] to launch the ASUS EZ Flash 3 screen.

## Main menu

The Main menu screen appears when you enter the Advanced Mode of the BIOS Setup program. The Main menu provides you an overview of the basic system information, and allows you to set the system date, time, language, and security settings.



### System Language [English]

Allows you to choose the BIOS language version from the options.

### System Date [Day xx/xx/xxxx]

Allows you to set the system date.

### System Time [xx:xx:xx]

Allows you to set the system time.

## Security

The Security menu items allow you to change the system security settings.



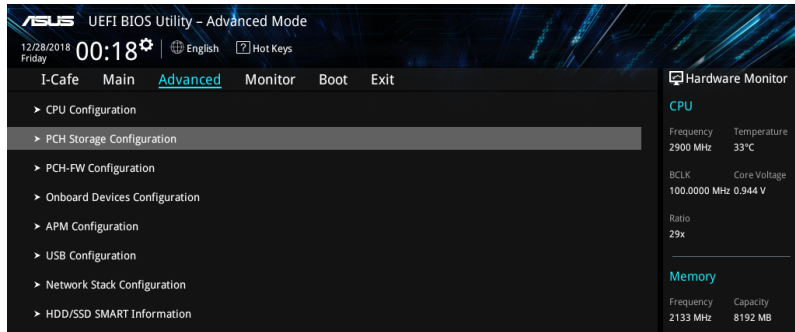
- If you have forgotten your BIOS password, erase the CMOS Real Time Clock (RTC) RAM to clear the BIOS password. See section 1 **Motherboard overview** for information on how to erase the RTC RAM.
- The **Administrator** or **User Password** items on top of the screen show the default **Not Installed**. After you set a password, these items show **Installed**.

## Advanced menu

The Advanced menu items allow you to change the settings for the CPU and other system devices.



Be cautious when changing the settings of the Advanced menu items. Incorrect field values can cause the system to malfunction.



## CPU Configuration

The items in this menu show the CPU-related information that the BIOS automatically detects.

## PCH Storage Configuration

While entering Setup, the BIOS automatically detects the presence of SATA devices. The SATA Port items show Empty if no SATA device is installed to the corresponding SATA port.

## PCH-FW Configuration

The items in this menu allows you to configure the management engine technology settings.

## Onboard Devices Configuration

The items in this menu allow you to configure the onboard devices.

## APM Configuration

The items in this menu allow you to configure the advanced power management settings.

## USB Configuration

The items in this menu allow you to change the USB-related features.

## Network Stack Configuration

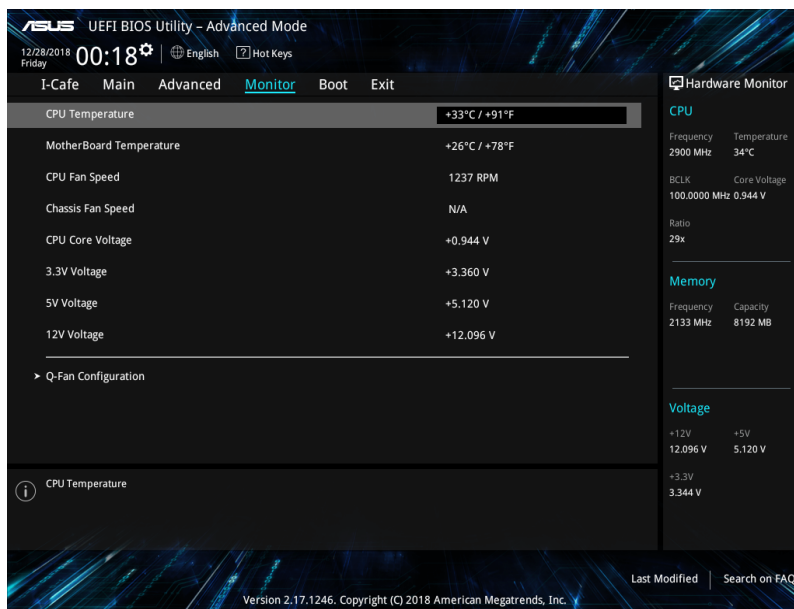
The items in this menu allow you to configure the network stack settings.

## HDD/SSD SMART Information

This menu displays the SMART information of the connected devices.

## Monitor menu

The Monitor menu displays the system temperature/power status, and allows you to change the fan settings.



### CPU/ MotherBoard Temperature

The onboard hardware monitor automatically detects and displays the CPU and motherboard temperatures. Select **[Ignore]** if you do not wish to display the detected temperatures.

### CPU Fan/ Chassis Fan Speed

The onboard hardware monitor automatically detects and displays the CPU and chassis fan speeds in rotations per minute (RPM). If the fan is not connected to the motherboard, the field shows N/A. Select **[Ignore]** if you do not wish to display the detected speed.

### CPU Core Voltage, 3.3V Voltage, 5V Voltage, 12V Voltage

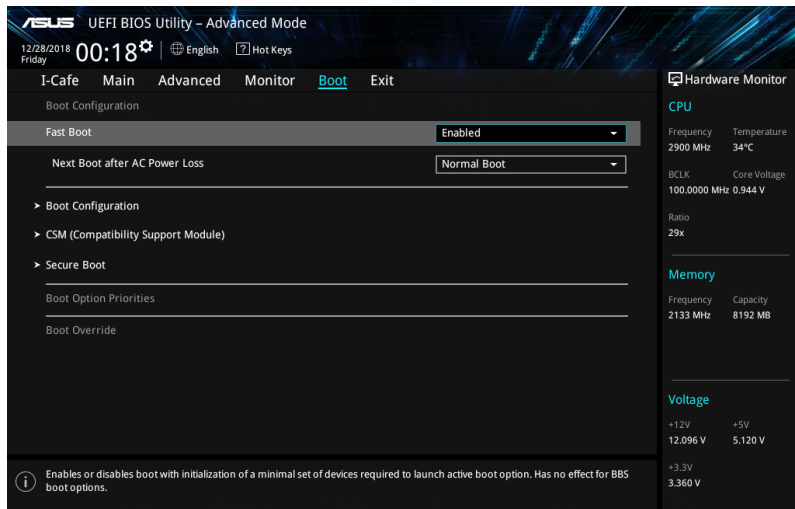
The onboard hardware monitor automatically detects the voltage output through the onboard voltage regulators. Select **[Ignore]** if you do not want to detect this item.

### Q-Fan Configuration

The subitems in this menu allows you to configure the Q-Fan features.

## Boot menu

The Boot menu items allow you to change the system boot options.



## Boot Configuration

### Fast Boot

This item allows you to accelerate the boot speed.

### Next Boot after AC Power Loss [Normal Boot]

[Normal Boot] Returns to normal boot on the next boot after AC power loss.

[Fast Boot] Accelerates the boot speed on the next boot after AC power loss.

### Boot Configuration

The sub-items in this item allow you to configure the boot options.

### CSM (Compatibility Support Module)

Allows you to configure the CSM (Compatibility Support Module) items to fully support the various VGA, bootable devices and add-on devices for better compatibility.

### Secure Boot

Allows you to configure the Windows® Secure Boot settings and manage its keys to protect the system from unauthorized access and malwares during POST.

### Boot Option Priorities

These items specify the boot device priority sequence from the available devices. The number of device items that appears on the screen depends on the number of devices installed in the system.



- 
- To access Windows® OS in Safe Mode, press <F8 > after POST (Windows® 8 not supported).
  - To select the boot device during system startup, press <F8> when ASUS Logo appears.
- 

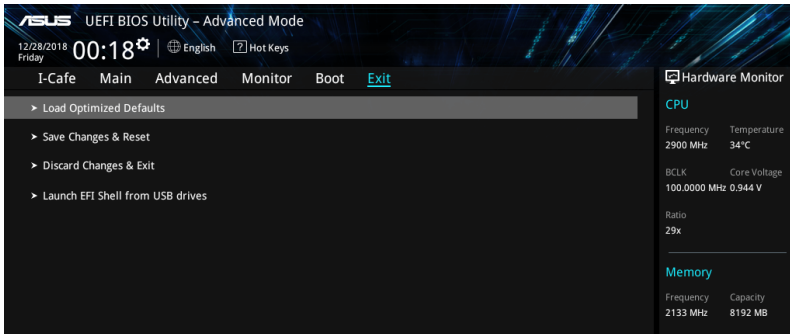
## Boot Override

These items displays the available devices. The number of device items that appears on the screen depends on the number of devices installed in the system. Click an item to start booting from the selected device.



## 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

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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.



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

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

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VCCI-B

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## Regional notice for California



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