Asus PRIME Z270-AR Series Manual

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Summary of Contents for Asus PRIME Z270-AR Series

[Page 1](#) PRIME Z270-AR Series...

[Page 2](#) Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification of alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

[Page 3: Table Of Contents](#)

Page 6: Safety Information

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.

Page 7: About This Guide

Refer to the following sources for additional information and for product and software updates. ASUS website The ASUS website (www.asus.com) provides updated information on ASUS hardware and software products. Optional documentation Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer.

Page 8 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 trying to complete a task. CAUTION: Information to prevent damage to the components when trying to complete a task.

Page 9: Prime Z270-Ar Specifications Summary

I219-V Gigabit LAN- Dual interconnect between the integrated Media ® Access Controller (MAC) and physical layer (PHY) ASUS LAN Guard ASUS Turbo LAN Utility Intel Z270 Express Chipset ® - 6 x USB 3.0/2.0 ports (2 ports @mid-board, 4 ports @back panel, blue) - 6 x USB 2.0/1.1 ports (6 ports @mid-board)

Page 10 ® Optane memory modules, ensure that you have updated your motherboard drivers and BIOS to the latest version from the ASUS support website. *****These functions will work depending on the CPU installed. Realtek S1220A 8-channel high definition audio CODEC featuring ®...

Page 11 PRIME Z270-AR specifications summary <Superb Performance> OC Design: ASUS PRO Clock Technology - Full BCLK range for extreme overclocking performance. 5-Way Optimization - Whole system optimization with a single click! Perfectly consolidates better CPU performance, power saving, digital power control, system cooling and app usages.

Page 12 - Protect your graphics card Investment ASUS 5X Protection III - ASUS SafeSlot Core - Fortified PCIe with solid soldering - ASUS LANGuard - Protects against LAN surges, lightning strikes and static-electricity discharges! - ASUS Overvoltage Protection - World-class circuit-protecting power...

Page 13 Internal I/O connectors 2 x 3D Mount screw ports 1 x Front panel audio connector (AAFP) 1 x Thunderbolt header (5-pin) for ASUS ThunderboltEX series support 1 x TPM connector 1 x COM connector 1 x 24-pin EATX Power connector...

Page 14 8-channel Audio I/O ports 128 Mb Flash ROM, UEFI AMI BIOS, PnP, WfM2.0, SM BIOS 3.0, ACPI 6.0, Multi-language BIOS, ASUS EZ Flash 3, CrashFree BIOS 3, F11 EZ Tuning Wizard, F6 Qfan Control, F3 My Favorites, Last Modified log, F12...

Page 15: Package Contents

3 x Serial ATA 6.0 Gb/s cables ASUS PRIME Z270-AR motherboard 2 x M.2 screw package 1 x Q-Connector 1 x CPU Installation Tool 1 x ASUS SLI HB BRIDGE(2-WAY-M) 1 x IO Shield 1 x User

Manual 1 x Support DVD •...

Page 16: Installation Tools And Components

Installation tools and components Intel ® LGA1151 CPU Intel LGA1151 compatible CPU Fan ® Phillips (cross) screwdriver SATA hard disk drive PC chassis DIMM 1 bag of screws Power supply unit SATA optical disc drive (optional) Graphics card The tools and components in the table above are not included in the motherboard package.

Page 17: Chapter 1: Product Introduction

Chapter 1: Product Introduction Product Introduction Motherboard overview 1.1.1 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. • Hold components by the edges to avoid touching the ICs on them. • Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component. • 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. ASUS PRIME Z270-AR Series...

Page 18: Motherboard Layout

1.1.2 Motherboard layout Refer to 1.1.9 Internal connectors and 2.2.1 Rear I/O connection for more information about rear panel connectors and internal connectors. Chapter 1: Product Introduction...

Page 19 1-14 ® SATA 6G_56) 9. Clear RTC RAM jumper (2-pin CLRTC) 1-11 10. System panel connector (20-3 pin PANEL) 1-20 11. USB 2.0 connectors (10-1 pin USB1314; USB910; USB1112) 1-17 12. USB 3.0 connector (20-1 pin USB3_34) 1-16 13. TPM connector (14-1 pin TPM) 1-21 14. RGB header (4-pin RGB_HEADER) 1-23 15. Serial port connector (10-1 pin COM) 1-24 16. Front panel audio connector (10-1 pin AAFP) 1-15 17. Thunderbolt header (5-pin TB_HEADER) 1-21 18. Thermal sensor connector (2-pin T_SENSOR) 1-24 19. CPU Over Voltage jumper (3-pin CPU_OV) 1-12 ASUS PRIME Z270-AR Series...

Page 20: Central Processing Unit (Cpu)

1.1.3 Central Processing Unit (CPU) The motherboard comes with a surface mount LGA1151 socket designed for the 7th & 6th Generation Intel Core™ i7 / Intel Core™ i5 / Intel Core™ i3, Pentium , and Celeron ® ® ® ® ® processors. • Ensure that all power cables are unplugged 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. ASUS will shoulder the cost of repair only if the damage is shipment/ transit-related. • 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. Chapter 1: Product Introduction...

Page 21: System Memory

1.1.4 System memory The motherboard comes with four DDR4 (Double Data Rate 4) Quad Inline Memory Modules (DIMM) slots. A DDR4 module is notched differently from a DDR, DDR2, or DDR3 module. DO NOT install a DDR, DDR2, or DDR3 memory module to the DDR4 slot. Recommended memory configurations ASUS PRIME Z270-AR Series...

Page 22 Memory configurations You may install 1 GB, 2 GB, 4 GB, 8 GB and 16 GB unbuffered and non-ECC DDR4 DIMMs into the DIMM sockets. • 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. • Due to the memory address limitation on 32-bit Windows OS, when you install 4 GB ® or more memory on the motherboard, the actual usable memory for the OS can be about 3 GB or less. For effective use of memory, we recommend that you do any of the following: a) Use a maximum of 3GB system memory if you are using a 32-bit Windows OS. ® b) Install a 64-bit Windows OS when you want to install 4 GB or more on the ® motherboard. c) For more details, refer to the Microsoft support site at http://support.microsoft. ® com/kb/929605/en-us. • This motherboard does not support DIMMs made up of 512 Mb (64

MB) chips or less (Memory chip capacity counts in Megabit, 8 Megabit/Mb = 1 Megabyte/MB). • 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 (4 DIMMs) or overclocking condition.

Page 23: Expansion Slots

1.1.5 Expansion slots Unplug the power cord before adding or removing expansion cards. Failure to do so may cause you physical injury and damage motherboard components. Slot No. Slot Description PCIE 3.0/2.0 x1_1 slot PCIE 3.0/2.0 x16_1 slot PCIE 3.0/2.0 x1_2 slot PCIE 3.0/2.0 x1_3 slot PCIE 3.0/2.0 x16_2 slot PCIE 3.0/2.0 x1_4 slot PCIE 3.0/2.0 x16_3 slot ASUS PRIME Z270-AR Series...

Page 24 PCI Express 3.0 operating mode VGA configuration PCIe 3.0/2.0 x16_1 PCIe 3.0/2.0 x16_2 x16 (single VGA Single VGA/PCIe card recommended) Dual VGA/PCIe card • We recommend that you provide sufficient power when running CrossFireX™ or SLI ® mode. • Connect chassis fans to the motherboard chassis fan connectors when using multiple graphics cards for better thermal environment. IRQ assignments for this motherboard PCIe x16_1 shared PCIe x16_2 shared PCIe x16_3 shared PCIe x1_1 shared PCIe x1_2 shared PCIe x1_3 shared PCIe x1_4 shared...

Page 25: Onboard Buttons And Switches

1.1.6 Onboard buttons and switches Onboard buttons and switches allow you to fine-tune performance when working on a bare or open-case system. This is ideal for overclockers and gamers who continually change settings to enhance system performance. Power-on button The motherboard comes with a power-on button that allows you to power up or wake up the system. The LED near the button also lights up when the system is plugged to a power source indicating that you should shut down the system and unplug the power cable before removing or installing any motherboard component. ASUS PRIME Z270-AR Series...

Page 26 MemOK! button lights continuously, press the MemOK! button until the DRAM_LED starts blinking. System will begin automatic memory compatibility tuning and reboot for successful boot. • Refer to section 1.1.8 Onboard LEDs for the exact location of the DRAM_LED. • The DRAM_LED also lights up when the DIMM is not properly installed. Turn off the system and reinstall the DIMM before using the MemOK! function. • The MemOK! button does not function under Windows OS environment. ® • During the tuning process, the system loads and tests failsafe memory settings. It takes about 30 seconds for the system to test one set of failsafe settings. If the test fails, the system reboots and tests the next set of failsafe settings. The blinking speed of the DRAM_LED increases, indicating different test processes. • Due to memory tuning requirement, the system automatically reboots when each timing set is tested. If the installed DIMMs still fail to boot after the whole tuning process, the DRAM_LED lights continuously. Replace the DIMMs with ones recommended in the Memory QVL (Qualified Vendors Lists) at www.asus.com. • If you turn off the computer and replace DIMMs during the tuning process, the system continues memory tuning after turning on the computer. To stop memory tuning, turn off the computer and unplug the power cord for about 5–10 seconds. • If your system fails to boot up due to BIOS overclocking, press the MemOK! button to boot and load the BIOS default settings. A message will appear during POST reminding you that the BIOS has been restored to its default settings. • We recommend that you download and update to the latest BIOS version from www.asus.com after using the MemOK! function. Chapter 1: Product Introduction 1-10...

Page 27: Jumpers

1.1.7 Jumpers Clear RTC RAM jumper (2-pin CLRTC) This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS. You can clear the CMOS memory of date, time, and system setup parameters by erasing the CMOS RTC RAM data. The onboard button cell battery powers the RAM data in CMOS, which include system setup information such as system passwords. To erase the RTC RAM: Turn OFF the computer and unplug the power cord. Short-circuit pin 1-2 with a metal object or jumper cap for about 5-10 seconds. Plug the power cord and turn ON the computer. Hold down the <Delete> key during the boot process and enter BIOS setup to re-enter data. Except when clearing the RTC RAM, never place a metal object or jumper cap on the CLRTC jumper. Placing a metal object or jumper cap will cause system boot failure! • If the steps above do not help, remove the onboard battery and place a metal object or jumper cap again to clear the CMOS RTC RAM data. After the CMOS clearance, reinstall the battery. • You do not need to clear the RTC when the system hangs due to overclocking. For system failure due to overclocking, use the C.P.R. (CPU Parameter Recall) feature. Shut down and reboot the system so the BIOS can automatically reset parameter settings to default values. • Due to the

chipset behavior, AC power off is required to enable C.P.R. function. You must turn off and turn on the power supply or unplug and plug the power cord before rebooting the system. ASUS PRIME Z270-AR Series 1-11...

CPU Over Voltage jumper (3-pin CPU_OV) The CPU Over Voltage jumper allows you to set a higher CPU voltage for a flexible overclocking system, depending on the type of the installed CPU. To gain more CPU voltage setting, insert the jumper to pins 2-3. To go back to its default CPU voltage setting, insert the jumper to pins 1-2. Chapter 1: Product Introduction 1-12...

Page 29: Onboard Leds

1.1.8 Onboard LEDs POST State LEDs The POST State LEDs provide the status of these key components during POST (Power-On Self-Test): CPU, memory modules, VGA card, and hard disk drives. If an error is found, the critical component's LED stays lit up until the problem is solved. Standby Power LED The motherboard comes with a standby power LED. The LED lights up to indicate that the system is ON, in sleep mode, or in soft-off mode. This is a reminder that you should shut down the system and unplug the power cable before removing or plugging in any motherboard component. The illustration below shows the location of the onboard LED. ASUS PRIME Z270-AR Series 1-13...

Page 30: Internal Connectors

1.1.9 Internal connectors Intel Serial ATA 6 Gb/s connectors (7-pin SATA6G_12; SATA 6G_34; ® SATA 6G_56) These connectors connect to Serial ATA 6 Gb/s hard disk drives via Serial ATA 6 Gb/s signal cables. If you installed Serial ATA hard disk drives, you can create a RAID 0, 1, 5, and 10 configuration with the Intel Rapid Storage Technology through the onboard Intel ® ® Z270 chipset. These connectors are set to [AHCI Mode] by default. If you intend to create a Serial ATA RAID set using these connectors, set the SATA Mode item in the BIOS to [Intel RST Premium With Intel Optane System Acceleration (RAID)]. Chapter 1: Product Introduction 1-14...

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. 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. ASUS PRIME Z270-AR Series 1-15...

USB 3.0 connector (20-1 pin USB3_34) This connector allows you to connect a USB 3.0 module for additional USB 3.0 front or rear panel ports. With an installed USB 3.0 module, you can enjoy all the benefits of USB 3.0 including faster data transfer speeds of up to 5 Gb/s, faster charging time for USB-chargeable devices, optimized power efficiency, and backward compatibility with USB 2.0. The USB 3.0 module is purchased separately. • Ensure to install the related driver to fully use the USB 3.0 ports under Windows ® • The plugged USB 3.0 device may run on xHCI or EHCI mode depending on the operating system's setting. Chapter 1: Product Introduction 1-16...

USB 2.0 connectors (10-1 pin USB1314; USB910; USB1112) These connectors are for USB 2.0 ports. Connect the USB module cable to these connectors, then install the module to a slot opening at the back of the system chassis. This USB connector complies with USB 2.0 specification that supports up to 480 Mb/s connection speed. DO NOT connect a 1394 cable to the USB connectors. Doing so will damage the motherboard! The USB 2.0 module is purchased separately. ASUS PRIME Z270-AR Series 1-17...

CPU, CPU optional, high amp, extension, and chassis fan connectors (4-pin CPU_FAN; 4-pin CPU_OPT; 4-pin H_AMP_FAN; 5-pin EXT_FAN; 4-pin CHA_ FAN1-2) 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! • Ensure that the CPU fan cable is securely installed to the CPU fan connector. • The CPU_FAN connector supports the CPU fan of maximum 1A (12 W) fan power. • The EXT_FAN connector supports 2 of 5 thermal sensor sources. • For better Q-Fan functions, we recommend using 4-pin PWM fans when you connect powerful fans (1A or above) onto the H_AMP_FAN connector. • Ensure to disable Q-Fan functions if you want to connect powerful 3-pin DC fans (1A or above) onto the H_AMP_FAN connector. • Connect the fan of your water cooling kit to the AIO_PUMP connector.

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 8-pin EATX12V power plug. Otherwise, the system will not boot. • We recommend that you use a PSU with a higher power output when configuring a system with more power-consuming devices. The system may become unstable or may not boot up if the power is inadequate. • If you want to use two or more high-end PCI Express x16 cards, use a PSU with 1000W power or above to ensure the system stability. ASUS PRIME Z270-AR Series 1-19...

System panel connector (20-3 pin PANEL) This connector supports several chassis-mounted functions. • System power LED (2-pin or 3-1 pin PLED) The 2-pin or 3-1 pin connector is for the system power LED. Connect the chassis power LED cable to this connector. The system power LED lights up when you turn on the system power, and blinks when the system is in sleep mode. • Hard disk drive activity LED (2-pin HDD_LED) This 2-pin connector is for the HDD Activity LED. Connect the HDD Activity LED cable to this connector. The HDD LED lights up or flashes when data is read from or written to the HDD. • System warning speaker (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. • ATX power button/soft-off button (2-pin PWRSW) This connector is for the system power button. Pressing the power button turns the system on or puts the system in sleep or soft-off mode depending on the operating system settings. Pressing the power switch for more than four seconds while the system is ON turns the system OFF. • Reset button (2-pin RESET) This 2-pin connector is for the chassis-mounted reset button for system reboot without turning off the system power. • Chassis intrusion connector (2-pin CHASSIS) This connector is for a chassis-mounted intrusion detection sensor or switch. Connect one end of the chassis intrusion sensor or switch cable to this connector. The chassis intrusion sensor or switch sends a high-level signal to this connector when a chassis component is removed or replaced. The signal is then generated as a chassis intrusion event. Chapter 1: Product Introduction 1-20...

TPM connector (14-1 pin TPM) This connector supports a Trusted Platform Module (TPM) system, which securely stores keys, digital certificates, passwords and data. A TPM system also helps enhance network security, protect digital identities, and ensures platform integrity. The TPM module is purchased separately. Thunderbolt header (5-pin TB_HEADER) This connector is for the add-on Thunderbolt I/O card that supports Intel's Thunderbolt Technology, allowing you to connect up to six Thunderbolt-enabled devices and a DisplayPort-enabled display in a daisy-chain configuration. The add-on Thunderbolt I/O card and Thunderbolt cables are purchased separately. ASUS PRIME Z270-AR Series 1-21...

10. M.2 sockets (M.2_1(Socket 3); M.2_2(Socket 3)) These sockets allow you to install M.2 SSD modules. • M.2_1 socket supports PCIe 3.0 x4 and SATA mode M Key design and type 2242 / 2260 / 2280 / 22110 PCIe and SATA storage devices. • M.2_2 socket supports PCIe 3.0 x4 M Key design and type 2242 / 2260 / 2280 PCIe storage devices. • These sockets support IRST (Intel Rapid Storage Technology). ® The M.2 SSD module is purchased separately. Chapter 1: Product Introduction 1-22...

RGB header (4-pin RGB_HEADER) This connector is for RGB LED strips. The RGB header supports 5050 RGB multi-color LED strips (12V/G/R/B), with a maximum power rating of 2A (12V), and no longer than 2 m. 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. • Actual lighting and color will vary with LED strip. • If your LED strip does not light up, check if the RGB LED extension cable and the RGB LED strip is connected in the correct orientation, and the 12V connector is aligned with the 12V header on the motherboard. • The LED strip will only light up under the operating system. • The LED strip is purchased separately. ASUS PRIME Z270-AR Series 1-23...

Thermal sensor connector (2-pin T_SENSOR) This connector is for the thermistor cable that monitors the temperature of the devices and the critical components inside the motherboard. Connect the thermistor cable and place the sensor on the device or the motherboard's component to detect its temperature. Serial port connector (10-1 pin COM) 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. The COM module is purchased separately. Chapter 1: Product Introduction 1-24...

Page 41: Chapter 2: Basic Installation

2.1.1 Motherboard installation Install the IO Shield to the chassis rear I/O panel. Place the

motherboard into the chassis, ensuring that its rear I/O ports are aligned to the chassis' rear I/O panel. ASUS PRIME Z270-AR Series...

Place nine screws into the holes indicated by circles to secure the motherboard to the chassis. DO NOT overtighten the screws! Doing so can damage the motherboard. Chapter 2: Basic Installation...

Page 43: Cpu Installation

Ensure that you install the correct CPU designed for LGA1151 socket only. DO NOT install a CPU designed for LGA1155 and LGA1156 sockets on the LGA1151 socket. Top of CPU Bottom of CPU Bottom of CPU ASUS PRIME Z270-AR Series...

Top of CPU • The CPU Installation Tool is only compatible on ASUS motherboards with a Intel ® LGA1151 socket. • Ensure that the CPU is firmly clicked into place before installing it onto the CPU socket on the motherboard. • Use the CPU Installation Tool for installing the CPU only. DO NOT damage or bend the CPU Installation Tool. • Always firmly hold both sides of the CPU Installation Tool when installing, removing, or picking up the CPU Installation Tool. • Ensure to use a soft stable surface when installing the CPU to the CPU Installation Tool to prevent CPU damage. • ASUS will not cover damages resulting from incorrect CPU installation/removal, incorrect CPU orientation/placement, or other damages resulting from negligence by the user.

Page 45: Cpu Heatsink And Fan Assembly Installation

2.1.3 CPU heatsink and fan assembly installation Apply the Thermal Interface Material to the CPU heatsink and CPU before you install the heatsink and fan, if necessary. To install the CPU heatsink and fan assembly ASUS PRIME Z270-AR Series...

To uninstall the CPU heatsink and fan assembly Chapter 2: Basic Installation...

Page 47: Dimm Installation

2.1.4 DIMM installation To remove a DIMM ASUS PRIME Z270-AR Series...

Page 48: Atx Power Connection

2.1.5 ATX power connection Ensure to connect the 8-pin power plug. 2.1.6 SATA device connection Chapter 2: Basic Installation...

Page 49: Front I/O Connector

2.1.7 Front I/O connector To install ASUS Q-Connector To install USB 2.0 connector To install front panel audio connector AAFP USB 2.0 To install USB 3.0 connector USB 3.0 ASUS PRIME Z270-AR Series...

Page 50: Expansion Card Installation

2.1.8 Expansion card installation To install PCIe x16 cards To install PCIe x1 cards Chapter 2: Basic Installation 2-10...

Page 51: M.2 Installation

2.1.9 M.2 installation Supported M.2 type varies per motherboard. ASUS PRIME Z270-AR Series 2-11...

Page 52: Motherboard Rear And Audio Connections

Motherboard rear and audio connections 2.2.1 Rear I/O connection Rear panel connectors USB 3.1 Type-A port EA2 USB 3.0 ports E12 PS/2 keyboard/mouse combo port USB 3.0 ports E56 Intel LAN port* Optical S/PDIF Out port ® USB 3.1 Type-C port EC1 Audio I/O ports** HDMI 1.4b port * and ** : Refer to the tables on the next page for LAN port LEDs and audio port definitions.

Front Speaker Out Front Speaker Out Front Speaker Out Pink Mic In Mic In Mic In Mic In Orange – – Center/Sub Center/Sub woofer woofer Black – Rear Speaker Out Rear Speaker Out Rear Speaker Out ASUS PRIME Z270-AR Series 2-13...

Gaming/Media Editing, then click Next. ASUS PRIME Z270-AR Series...

Select a Main Cooling System BOX cooler, Tower cooler, Water cooler, or I'm not sure, then click Next. After selecting the Main Cooling System, click Next then click Yes to start the OC Tuning. Creating RAID To create RAID: Press <F11> on your keyboard or click from the BIOS screen to open EZ Tuning Wizard screen.

After selecting the type of RAID, click Next then click Yes to continue the RAID setup. After the RAID setup is done, click Yes to exit the setup then click OK to reset your system. ASUS PRIME Z270-AR Series 3-11...

Page 68: My Favorites

My Favorites My Favorites is your personal space where you can easily save and access your favorite BIOS items. My Favorites comes with several performance, power saving, and fast boot related items by default. You can personalize this screen by adding or removing items. Chapter 3: BIOS Setup 3-12...

Configuration items such as Memory SPD Information, system time and date. Click Exit (ESC) or press <Esc> key to close Setup Tree Map screen. Go to My Favorites menu to view the saved BIOS items. ASUS PRIME Z270-AR Series 3-13...

Page 70: Main Menu

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

CPU permanently. ASUS MultiCore Enhancement [Auto] This item allows you to maximize the oveclocking performance optimized by ASUS core ratio settings. [Disabled] This item allows you to set to default core ratio settings. CPU Core Ratio This item allows you to set the CPU core ratios.

Page 72: Advanced Menu

Internal CPU Power Management The subitems in this menu allow you to set the CPU ratio and features. Intel(R) SpeedStep(tm) Allows the operating system to dynamically adjust the processor voltage and cores frequency to decrease the average power consumption and decrease average heat production.

Page 73: Platform Misc Configuration

[Intel RST Premium Set to [Intel RST Premium With Intel Optane System With Intel Optane Acceleration (RAID)] when you want to create a RAID System Acceleration configuration from the SATA hard disk drives. (RAID)] ASUS PRIME Z270-AR Series 3-17...

Page 74: Pch-Fw Configuration

SMART Self Test SMART (Self-Monitoring, Analysis and Reporting Technology) is a monitoring system that shows a warning message during POST (Power-on Self Test) when an error occurs in the hard disks. Configuration options: [On] [Off] SATA6G_1(Gray) - SATA6G_6(Gray) SATA6G_1(Gray) - SATA6G_6(Gray) This item allows you to enable or disable the selected SATA port.

Page 75: Onboard Devices Configuration

This item allows you to turn the RGB LED lighting on or off. Configuration options: [On] [Off] Intel LAN Controller This item allows you to enable or disable the Intel LAN controllers. Configuration options: [Disabled] [Enabled] ASUS PRIME Z270-AR Series 3-19...

Page 76: Apm Configuration

3.6.9 APM Configuration The items in this menu allow you to set system wake and sleep settings. ErP Ready [Disabled] This item allows you to switch off some power at S4+S5 or S5 to get the system ready for ErP requirement. When set to [Enabled], all other PME options are switched off. Configuration options: [Disabled] [Enable(S4+S5)] [Enable(S5)] 3.6.10 Network Stack Configuration...

disk array. To install the SATA hard disks for a RAID configuration: Install the SATA hard disks into the drive bays.

When the RAID Level item is selected, press <Enter> to select the RAID level to create, and then press <Enter>. Under Select Disks, press <Enter> and select X for the disks you want to include in the RAID set. ASUS PRIME Z270-AR Series...

When the Strip Size item is selected, press <Enter> to select strip size for the RAID array (for RAID 0, 10 and 5 only), and then press <Enter>. The available strip size values range from 4 KB to 128 KB. The following are typical values: RAID 0: 128 KB RAID 10: 64 KB RAID 5: 64 KB...

<Enter>. The following screen appears: When the Delete item is selected, press <Enter>, then select Yes to delete the RAID volume and return to the Intel Rapid Storage Technology menu, or select No to ® cancel. ASUS PRIME Z270-AR Series...

Page 92: Intel ® Rapid Storage Technology Option Rom Utility

4.1.4 Intel Rapid Storage Technology Option ROM utility ® To enter the Intel Rapid Storage Technology Option ROM utility: ® Turn on the system. During POST, press <Ctrl> + <I> to display the utility main menu. RAID Volumes: None defined. Physical Devices: Port Device Model...

Serial # Size Status ST3160812AS 9LS0HJA4 149.0GB Non-RAID Disk ST3160812AS 9LS0F4HL 149.0GB Non-RAID Disk ST3160812AS 3LS0JYL8 149.0GB Non-RAID Disk ST3160812AS 9LS0BJ5H 149.0GB Non-RAID Disk Select 2 to 6 to use in creating the volume. [↑↓]-Prev/Next [SPACE]-SelectDisk [ENTER]-Done ASUS PRIME Z270-AR Series...

Use the up/down arrow key to select a drive, and then press <Space> to select. A small triangle marks the selected drive. Press <Enter> after completing your selection. Use the up/down arrow key to select the strip size for the RAID array (for RAID 0, 10 and 5 only), and then press <Enter>.

(This does not apply to Recovery volumes) Are you sure you want to delete "Volume0"? (Y/N): Press <Y> to delete the RAID set and return to the utility main menu, or press <N> to return to the DELETE VOLUME menu. ASUS PRIME Z270-AR Series...

Page 96: Creating A Raid Driver Disk

Exiting the Intel Rapid Storage Technology Option ROM utility ® To exit the utility: From the utility main menu, select 6. Exit, then press <Enter>. The following warning message appears: [CONFIRM EXIT] Are you sure you want to exit? (Y/N): Press <Y>...

Page 97: Appendix

Consult the dealer or an experienced radio/TV technician for help. The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. ASUS PRIME Z270-AR Series...

IC: Canadian Compliance Statement Complies with the Canadian ICES-003 Class B specifications. This device complies with RSS 210 of Industry Canada. This Class B device meets all the requirements of the Canadian interference-causing equipment regulations. This device complies with Industry Canada license 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.

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.

доступний на: www.asus.com/support Cijeli tekst EU izjave o sukladnosti dostupan je na: www.asus.com/support Türkçe AsusTek Computer Inc., bu aygıtın temel gereksinimlerle

ve ilişkili Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že toto Yönergelerin diğer ilgili koşullarıyla uyumlu olduğunu beyan eder.

Page 101: Asus Contact Information

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Page 102 DECLARATION OF CONFORMITY Per FCC Part 2 Section 2. 1077(a) Asus Computer International Responsible Party Name: , CA 94539. Address: 800 Corporate Way, Fremont Phone/Fax No: (510)739-3777/(510)608-4555 hereby declares that the product Product Name : Motherboard Model Number : STRIX Z270E GAMING,...