I'm not robot

reCAPTCHA

Next

I'm not robot

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Next

guideTo ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.TypographyBold text Indicates a menu or an item to select.Italics Used to emphasize a word or a phrase. Keys enclosed in the less-than and greater-than sign means that you must press the enclosed key. Example: means that you must press the Enter or Return key. + + If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: + + 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. IMPORTANT: Instructions that you MUST follow to complete a task. NOTE: Tips and additional information to help you complete a task.Page 7viiAbout this guideThis user guide contains the information you need when installing and conguring the motherboard.How this guide is organizedThis guide contains the following parts:• Chapter 1: Product introductionThis chapter describes the features of the motherboard and the new technology it supports.• Chapter 2: Hardware informationThis chapter lists the hardware setup procedures that you have to perform when installing system components. It includes description of the switches, jumpers, and connectors on the motherboard.• Chapter 3: BIOS setupThis chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.• Chapter 4: Software supportThis chapter describes the contents of the support DVD that comes with the motherboard package and the software.• Chapter 5: Multiple GPU supportThis chapter describes the ATI® CrossFireX™ and NVIDIA® SLI™ feature and shows the graphics card installation procedures.Where to nd more informationRefer to the following sources for additional information and for product and software updates.1. ASUS websitesThe ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information.2. Optional documentationYour product package may include optional documentation, such as warranty yers, that may have been added by your dealer. These documents are not part of the standard package.Page 8ixP8Z77-V LK specications summaryCPU LGA1155 socket for Intel® 3rd / 2nd Generation Core™ i7 / i5 / i3 / Pentium® / Celeron® processors** Supports 32nm and 22nm CPU Support Intel® Turbo Boost technology 2.0* * The Intel® Turbo Boost technology 2.0 support depends on the CPU types.** Refer to www.asus.com for Intel® CPU support list.Chipset Intel® Z77 Express ChipsetMemory 4 x DIMMs, max. 32GB, DDR3 2400(O.C.)* / 2200(O.C.)* / 2133 (O.C.)/1866(O.C.) /1600/1333/1066 MHz, non-ECC, un-buffered memoryDual-channel memory architecture Supports Intel® Extreme Memory Prole (XMP)Hyper DIMM support is subject to the physical characteristics of individual CPUs. Please refer to Memory QVL (Qualied Vendors List) for details. Expansion slots2 x PCI Express 3.0* / 2.0 x16 slots (single at x16 or dual at x8 mode)1 x PCI Express 2.0 x16 slot [black] (max. at x4 mode, compatible with PCIe x1 and x4 devies)**2 x PCI Express 2.0 x1 slots 2 x PCI Express 3.0 speed is supported by Intel® 3rd generation CoreTM processors.** The PCIe x16_3 slot shares the bandwidth with the PCIe x1_2 slot. The default setting is x2 mode. Go to the BIOS setup to change the settings.Graphics Integrated Graphics Processor - Intel® HD Graphics Support Multi-VGA output support: DisplayPort, HDMI, DVI, RGB port- Supports DisplayPort 1.1a with max.resolution up to 2560 x 1600 @60Hz- Supports HDMI with max.resolution up to 1920 x 1200 @60Hz - Supports DVI with max. resolution up to 1920 x 1200 @60Hz - Supports RGB with max. resolution up to 2048 x 1536 @75Hz - Supports Intel® InTruTM 3D /InsiderTM /Quick Sync Video /Clear Video HD Technology /HD Graphics- Maximum shared memory of 1696MBMulti-GPU supportSupports NVIDIA® Quad-GPU SLITM Technology (with 2 PCIe x16 graphics cards)Supports AMD® 3-way / Quad-GPU CrossFireXTM Technology (with two PCIe x16 graphics card)Storage Intel® Z77 Express Chipset: - 2 x Serial ATA 6.0 Gb/s ports (gray) with RAID 0,1,5,10 support- 4 x Serial ATA 3.0 Gb/s ports (blue) with RAID 0,1,5,10 support- Supports Intel® Smart Response Technology, Intel® Rapid Start Technology, Intel® Smart Connect Technology* * Support for Intel® Core® processor family with Windows® 7 operating systems.(continued on the next page)Page 9x(continued on the next page)P8Z77-V LK specications summaryLANRealtek® 8111F Gigabit LAN controllerAudio Realtek® ALC892 8-channel High Denition Audio CODEC - Supports Jack-Detection, Multi-streaming and Front Panel Jack-Retasking - Optical S/PDIF out ports at back I/OUSB Intel® Z77 Express Chipset - supports ASUS USB 3.0 Boost UASP Mode.*- 2 x USB 3.0 /2.0 ports at the midboard for front panel support- 2 x USB 3.0 /2.0 ports at the back panel (blue)Intel® Z77 Express Chipset - 10 x USB 2.0 ports (8 ports at mid-board, 2 ports at back panel) ASMedia USB 3.0 controller - supports ASUS USB3.0 Boost UASP Mode- 2 x USB 3.0 ports at the back panel (blue) with RAID 0,1,5,10 support Windows 7® or later versions. UASP standard only supports Windows® 8.ASUS unique featuresASUS DIGI+ VRM - Digital Power Control: Digital power Design for the CPU and iGPU - ASUS 4+1+1 Phase Power DesignASUS Exclusive Features - Network iControl featuring instant network bandwidth domination for top network program in use - USB 3.0 Boost featuring the latest USB 3.0 UASP standard - MemOK! - TurboV - GPU Boost - AI Charger+ - Disk Unlocker featuring 3TB+ HDD support - AI Suite II - Anti Surge - 100% Solid CapacitorsASUS Quiet Thermal Solution - ASUS Fanless Design: Stylish Heatsink solution & MOS Heatsink Solution - ASUS Fan Xpert+ASUS EZ DIY - ASUS UEFI BIOS EZ Mode featuring friendly graphics user interface - ASUS CrashFree BIOS 3 - ASUS EZ Flash 2 - ASUS My Logo 2ASUS exclusive overclocking featuresPrecision Tweaker 2 - vCore: Adjustable CPU voltage at 0.005V increment - vCCSA: 190-step system agent voltage control - vDRAM Bus: 190-step Memory voltage control - vPCH: 190-step Memory voltage control - iGPU: 127-step iGPU voltage controlPage 10DECLARATION OF CONFORMITYPer FCC Part 2 Section 2. 1077(a) Responsible Party Name: Asus Computer International Address: 800 Corporate Way, Fremont, CA 94539. Phone/Fax No: (510)739-3777/(510)608-4555hereby declares that the productProduct Name : Motherboard Model Number : P8Z77-V LKConforms to the following specifications: FCC Part 15, Subpart B, Unintentional Radiators FCC Part 15, Subpart C, Intentional Radiators FCC Part 15, Subpart E, Intentional Radiators Supplementary Information: 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. Representative Person's Name : Steve Chang / President Signature : Date : Mar. , 2012 Ver. 110101EC Declaration of Conformity We, the undersigned, Manufacturer: ASUSTeK COMPUTER INC. Address, City: 4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN Country: TAIWAN Authorized representative in Europe: ASUS COMPUTER GmbH Address, City: HARKORT STR. 21-23, 40880 RATINGENCountry: GERMANYdeclare the following apparatus: Product name : Motherboard Model name : P8Z77-V LK conform with the essential requirements of the following directives:2004/108/EC-EMC Directive EN 55022:2010 EN 61000-3-2:2006+A2:2009 EN 55013:2001+A1:2003+A2:2006 EN 55024:2010 EN 61000-3-3:2008 EN 55020:2007+A11:20111999/5/EC-R &TTE Directive EN 300 328 V1.7.1(2006-10) EN 300 440-1 V1.6.1(2010-08) EN 300 440-2 V1.4.1(2010-08) EN 301 511 V9.0.2(2003-03) EN 301 908-1 V5.2.1(2011-05) EN 301 908-2 V5.2.1(2011-07) EN 301 893 V1.6.1(2011-11) EN 302 544-2 V1.1.1(2009-01) EN 302 623 V1.1.1(2009-01) EN 300 330-1 V1.7.1(2010-02) EN 300 330-2 V1.5.1(2010-02) EN 50360:2001 EN 62479:2010 EN 301 489-1 V1.9.2(2011-09) EN 301 489-3 V1.4.1(2002-08) EN 301 489-4 V1.4.1(2009-05) EN 301 489-7 V1.3.1(2005-11) EN 301 489-9 V1.4.1(2007-11) EN 301 489-17 V2.1.1(2009-05) EN 301 489-24 V1.5.1(2010-09) EN 302 326-2 V1.2.2(2007-06) EN 302 326-3 V1.3.1(2007-09) EN 301 357-2 V1.4.1(2008-11) EN 50385:2002 EN 62311:20082006/95/EC-LVD Directive EN 60950-1 / A11:2009 EN 60950-1 / A12:2011 EN 60065:2002 / A2:2010 EN 60065:2002 / A12:2011 2009/125/EC-ErP Directive Regulation (EC) No. 1275/2008 Regulation (EC) No. 642/2009 Regulation (EC) No. 278/2009 2011/65/EU-RoHS Directive Ver. 121001CE markingDeclaration Date: Dec. 12, 2012 Year to begin affixing CE marking:2012 Position : CEOName : Jerry ShenSignature : (EC conformity marking) Page 11ASUS P8Z77-V LK5-7Chapter 5B4. Select the NVIDIA GeForce tab, and then click Start the NVIDIA Control Panel.B5. The NVIDIA Control Panel window appears.Enabling SLI settingsFrom the NVIDIA Control Panel window, select Set SLI Conguration. Click Enable SLI and set the display for viewing SLI rendered content. When done, click Apply.Page 125-6Chapter 5: Multiple GPU supportChapter 5B1. If you cannot see the NVIDIA Control Panel item in step (A), select Personalize.B2. From the Personalization window, select Display Settings. B3. From the Display Settings dialog box, click Advanced Settings.Page 13ASUS P8Z77-V LK5-5Chapter 54. Align and rmly insert the SLI bridge connector to the goldngers on each graphics card. Ensure that the connector is rmly in place.5. Connect two independent auxiliary power sources from the power supply to the two graphics cards separately.6. Connect a VGA or a DVI cable to the graphics card.5.2.3 Installing the device driversRefer to the documentation that came with your graphics card package to install the device drivers.Ensure that your PCI Express graphics card driver supports the NVIDIA® SLI™ technology. Download the latest driver from the NVIDIA website (www.nvidia.com).GoldngersSLI bridge5.2.4 Enabling the NVIDIA SLI™ technologyAfter installing your graphics cards and the device drivers, enable the SLI feature in NVIDIA® Control Panel under the Windows® 7™ operating system.Launching the NVIDIA Control PanelYou can launch the NVIDIA Control Panel by the following two methods.A. Right click on the empty space of the Windows® desktop and select NVIDIA Control Panel. The NVIDIA Control Panel window appears (See Step B5).Page 145ASUS P8Z77-V LK5-3Chapter 5NVIDIA® SLI™ (Scalable Link Interface) technology that allows you to install multi-graphics processing units (GPU) graphics cards. Follow the installation procedures in this section.5.2.1 Requirements• In SLI mode, you should have two identical SLI-ready graphics cards that are NVIDIA®certied.• Ensure that your graphics card driver supports the NVIDIA SLI™ technology. Download the latest driver from the NVIDIA website (www.nvidia.com).• Ensure that your power supply unit (PSU) can provide at least the minimum power required by your system. See Chapter 2 for details.5.2.2 Installing two SLI-ready graphics cardsThe following pictures are for reference only. The graphics cards and the motherboard layout may vary with models, but the installation steps remain the same.1. Prepare two SLI-ready graphics cards. 2. Insert the two graphics card into the PCIEX16 slots. If your motherboard has more than two PCIEX16 slots, refer to Chapter 2 in this user manual for the locations of the PCIEX16 slots recommended for multi-graphics card installation.3. Ensure that the cards are properly seated on the slots.• We recommend that you install additional chassis fans for better thermal environment.• Visit the NVIDIA zone website ( ) for the latest certied graphics card and supported 3D application list.Page 155-2Chapter 5: Multiple GPU supportChapter 55.5. Connect two independent auxiliary power sources from the power supply to the two graphics cards separately.6. Connect a VGA or a DVI cable to the graphics card.5.1.3 Installing the device driversRefer to the documentation that came with your graphics card package to install the device drivers.Ensure that your PCI Express graphics card driver supports the NVIDIA® certied.• Ensure that your graphics card driver supports the NVIDIA SLI™ technology. Download the latest driver from the NVIDIA website (www.nvidia.com).• Ensure that your power supply unit (PSU) can provide at least the minimum power required by your system.5.1.2 Installing two CrossFireX™ graphics cardsThe following pictures are for reference only. The graphics cards and the motherboard layout may vary with models, but the installation steps remain the same.1. Prepare two CrossFireX-ready graphics cards. 2. Insert the two graphics card into the PCIEX16 slots. If your motherboard has more than two PCIEX16 slots, refer to Chapter 2 in this user manual for the locations of the PCIEX16 slots recommended for multi-graphics card installation.3. Ensure that the cards are properly seated on the slots.goldngersCrossFireX bridge (bundled with graphics cards)Page 164-32Chapter 4: Software supportChapter 4Deleting a RAID setTake caution when deleting a RAID set. You will lose all data on the hard disk drives when you delete a RAID set:1. From the utility main menu, select 2. Delete RAID Volume and press . The following screen appears.Exiting the Intel® Rapid Storage Technology Option ROM utilityTo exit the utility:1. From the utility main menu, select 5. Exit, and then press . The following warning message appears.2. Press to exit or press to return to the utility main menu.2. Use the up/down arrow key to select the RAID set you want to delete, and then press . The following warning message appears:3. Press to delete the RAID set and return to the utility main menu, or press to return to the DELETE VOLUME menu.Intel(R) Rapid Storage Technology - Option ROM - v10.5.1.1070 Copyright(C) 2003-10 Intel Corporation. All Rights Reserved.[DELETE VOLUME MENU][HELP]Deleting a volume will reset the disks to non-RAID.WARNING: ALL DISK DATA WILL BE DELETED.(This does not apply to Recovery volumes) [↑]-Select [ESC]-Previous Menu[Name Level Drives Capacity Status BootableVolume0 RAID0(Stripe) 2 298.0GB Normal YesALL DATA IN THE VOLUME WILL BE LOST!(This does not apply to Recovery volumes)Are you sure you want to delete volume "Volume0"? (Y/N):[DELETE VOLUME VERIFICATION]Are you sure you want to delete volume "Volume0"? (Y/N):[CONFIRM EXIT]Page 17ASUS P8Z77-V LK4-314.5.2 Installing Serial ATA hard disksThe motherboard supports Serial ATA hard disk drives. For optimal performance, install identical drives of the same model and capacity when creating a disk array.To install the SATA hard disks for a RAID conguration:1. Install the SATA hard disks into the drive bays.2. Connect the SATA signal cables.3. Connect a SATA power cable to the power connector on each drive.4.5.3 Setting the RAID item in BIOSYou must enable the RAID function in the BIOS Setup before creating RAID set(s) using SATA HDDs. To do this:1. Enter the BIOS Setup during POST.2. Go to the Advanced menu > SATA Conguration, and then press .3. Set the SATA Mode item to [RAID Mode].4. Save your changes, and then exit the BIOS Setup.Refer to Chapter 3 for details on entering and navigating through the BIOS Setup.Due to chipset limitation, when set any of SATA ports to RAID mode, all SATA ports run at RAID mode together.4.5.4 Intel® Rapid Storage Technology Option ROM utilityTo enter the Intel® Rapid Storage Technology Option ROM utility:1. Turn on the system.2. During POST, press + to display the utility main menu.Intel(R) Rapid Storage Technology - Option ROM - v10.5.1.1070 Copyright(C) 2003-10 Intel Corporation. All Rights Reserved.[MAIN MENU]1. Create RAID Volume 4. Recovery Volume Options 2. Delete RAID Volume 5. Acceleration Options 3. Reset Disks to Non-RAID 6. Exit[DISK/VOLUME INFORMATION] RAID Volumes: Nonedened. Physical Devices: Port Device Model Serial # Size Type/Status(Vol ID) 0 ST3160812AS 9LS0HJA4 149.0GB Non-RAID Disk 1 ST3160812AS 9LS0F4HL 149.0GB Non-RAID Disk 2 ST3160812AS 9LS0BJ5H 149.0GB Non-RAID Disk 3 ST3160812AS 9LS0JYL8 149.0GB Non-RAID Disk [↑]-Select [ESC]-Exit [ENTER]-Select MenuPage 184-28Chapter 4: Software supportChapter 44.5 RAID congurationsThe motherboard supports the following SATA RAID solutions:• Intel® Rapid Storage Technology with RAID 0, RAID 1, RAID 10 and RAID 5 support.• You must install Windows® XP Service Pack 3 or Windows® 64-bit XP / 7 / 64-bit 7 operating systems (OS) before using Serial ATA hard disks. The Serial ATA RAID feature is available only if you are using Windows® XP SP3 or Windows® 64-bit XP / 7 / 64-bit 7 operating systems (OS).• Due to Windows® XP limitation, a RAID array with the total capacity over 2TB cannot be set as a boot disk. A RAID array over 2TB can only be set as a data disk only.• If you want to install a Windows® operating system to a hard disk drive included in a RAID set, you have to create a RAID driver disk and load the RAID driver during OS installation. Refer to section 4.5 Creating a RAID driver disk for details.4.5.1 RAID denitionsRAID 0 (Data striping) optimizes two identical hard disk drives to read and write data in parallel, interleaved stacks. Two hard disks perform the same work as a single drive but at a sustained data transfer rate, double that of a single disk alone, thus improving data access and storage. Use of two new identical hard disk drives is required for this setup.RAID 1 (Data mirroring) copies and maintains an identical image of data from one drive to a second drive. If one drive fails, the disk array management software directs all applications to the surviving drive as it contains a complete copy of the data in the other drive. This RAID conguration provides data protection and increases fault tolerance to the entire system. Use two new drives or use an existing drive and a new drive for this setup. The new drive must be of the same size or larger than the existing drive.RAID 5 stripes both data and parity information across three or more hard disk drives. Among the advantages of RAID 5 conguration include better HDD performance, fault tolerance, and higher storage capacity. The RAID 5 conguration is best suited for transaction processing, relational database applications, enterprise resource planning, and other business systems. Use a minimum of three identical hard disk drives for this setup.RAID 10 is data striping and data mirroring combined without parity (redundancy data) having to be calculated and written. With the RAID 10 conguration you get all the benets of both RAID 0 and RAID 1 congurations. Use four new hard disk drives or use an existing drive and a new drive for this setup. The new drive must be of the same size or larger than the existing drive.Page 19ASUS P8Z77-V LK4-21Chapter 46. To launch the disk partitioning tool, click Start > Programs > Accessories > Command Prompt tool.7. Type diskpart and press Enter.8. In the diskpart prompt, type list disk after DISKPART, and press Enter. Select the disk with the unallocated volume by typing select disk x (x = disk number), and press Enter . 9. Type create partition primary, and press Enter. 10. After creating a primary partition, type detail disk, and press Enter to view the details of the partitioned disk. 11. Select the RAW volume which has the same size as the shrinked volume, type select volume x (x = number), and press Enter to store the boot partition.• The value "x" refers to a disk number where you want to create the store partition.• Refer to step 5 for details about the unallocated disk space in the SSD.Page 20ASUS P8Z77-V LK4-19Chapter 43. Select Disable Acceleration to disable this function, and select Change Mode to switch acceleration mode to Enhanced/Maximized.• To enable Intel® Smart Response Technology, you need at least one SSD (20GB) and a HDD, and only one SSD can be assigned for caching. • If you want to restore the OS, go to BIOS Option ROM > Acceleration Options and remove the Disks/Volume Acceleration to disable Intel® Smart Response Technology. Refer to Chapter 4, section Installing Serial ATA hard disks for the entry of BIOS Option ROM. • The maximum caching size on the SSD is 64GB. If it exceeds, the storage capacity left out for caching can still be idented by the system for normal storage.4.4.3 Intel® Rapid Storage TechnologyAllows you to quickly resume your computer from sleeping mode. Saving your computer's system power savings to the congured SSD provides a faster response time, but keeps the energy in a low prole.• Before applying Intel® Rapid Start Technology, go to Advanced Mode > Advanced > PCH Conguration in BIOS item, and enable Intel® Rapid Start Technology.• Ensure to follow the procedure Creating a partition precisely to enable the Intel Rapid Start function. Error message appears if you install the Intel® Rapid Start Utility before creating a partition.Creating a partition• Ensure to backup your data before using the Microsoft partition tool. Incorrect partitioning process will result to data loss.• Adjusting the DRAM to a high frequency will result to unstable system performance.1. Go to Start, right-click Computer > Manage > Disk Management.2. Select the SSD that you want to create the partition.=Page 214-18Chapter 4: Software supportChapter 44.4.2 Intel® Smart Response TechnologyIntel® Smart Response Technology boosts overall system performance. It uses an installed fast SSD (min. 20GB available) as a cache for frequently accessed operations, speeding up hard drive/main memory interaction. Key benets are expedited hard drive speeds, reduced load and wait times, and maximized storage utilization. Power consumption also goes down by reducing unnecessary hard drive spin.Before applying Intel® Smart Response Technology, setting the SATA Mode BIOS item to [RAID mode] in BIOS setup is necessary. Refer to section 3.5.3 SATA Conguration for detailsInstalling Intel® Smart Response Technology1. Place the support DVD to the optical drive. The Drivers installation tab appears if your computer has enabled the Autorun feature.2. Click the Drivers tab, then click Intel® Rapid Start Technology to launch Smart Response Technology settings. 2. Select the SSD you want to use to accelerate your storage system. b. Select the size allocated for SSD caching. c. Select which HDD for caching. d. Enhanced mode: WRITE THROUGH, write to SSD and HDD at the same time. Maximized mode: WRITE BACK, write to SSD and write back to HDD in a later time.Page 224-10Chapter 4: Software support4.4.3 FAN Xpert+Fan Xpert+ intelligently allows you to adjust both the CPU and chassis fan speeds according to different ambient temperatures caused by different climate conditions in different geographic regions and your PC's system loading. The built-in variety of useful proles offer exible controls of fan speed to achieve a quiet and cool environment.Launching FAN Xpert+After installing AI Suite II from the motherboard support DVD, launch FAN Xpert+ by clicking Tool > FAN Xpert+ on the AI Suite II main menu bar.Using FAN Xpert+• Turbo: maximizes the fan speed for quiet fan operation.• Silent: minimizes fan speed for quiet fan operation.• Standard: adjusts fan speed in a moderate pattern. • Stable: uses the CPU fan speed to avoid noise caused by the unsteady fan rotation. However, the fan will speed up when the temperature exceeds 70°C.• User: Allows you to congure the CPU fan prole under certain limitations. Using FAN Xpert+Click Fan Name to select a fan and then click Setting to select a preset mode for your selected fan.Click to select a fan typeClick to configure the settingsClick to discard the settingsPage 234-8Chapter 4: Software supportChapter 44.4.3 DIGI+ VRMASUS DIGI+ VRM allows you to adjust VRM voltage and frequency modulation to enhance reliability and stability. It also provides the highest power efciency, generating less heat to longer component lifespan and minimize power loss.After installing AI Suite II from the motherboard support DVD, launch DIGI+ VRM by clicking Tool > DIGI+ VRM on the AI Suite II main menu bar.• The actual performance boost may vary depending on your CPU specication.• Do not remove the thermal module. The thermal conditions should be monitored.Refer to the software manual in the support DVD or visit the ASUS website at www.asus.com for detailed software conguration.Items Function description1CPU Load-line Calibration Increase phase number under heavy system loading to get more transient and better thermal performance. Reduce phase number under light system loading to increase VRM efciency.2CPU Power Duty Control CPU Power Duty Control adjusts the current of every VRM phase and the thermal of every phase component.Application helpsApply all changes immediatelyUndo all changes without applying1235467Page 24ASUS P8Z77-V LK3-39Chapter 3Booting the system in DOS environment.1. Insert the USB ash drive with the latest BIOS le and BIOS Updater to the USB port.2. Boot your computer. When the ASUS Logo appears, press to show the BIOS Boot Device Select Menu. Insert the support DVD into the optical drive and select the support DVD as the boot device.Welcome To FreeDOS ( )!C:\>d:D:\>3. When the Make Disk menu appears, select the FreeDOS command prompt item by pressing the item number.4. At the FreeDOS prompt, type d: and press to switch the disk from Drive C (optical drive) to Drive D (USB ash drive).3.10.4 ASUS BIOSUpdaterThe ASUS BIOS Updater allows you to update BIOS in DOS environment. This utility also allows you to copy the current BIOS le that you can use as a backup when the BIOS fails or gets corrupted during the updating process.The succeeding utility screens are for reference only. The actual utility screen displays may not be same as shown.Before updating BIOS 1. Prepare the motherboard support DVD and a USB ash drive in FAT32/16 format and single partition.2. Download the latest BIOS le and BIOS Updater from the ASUS website at and save it to a USB ash drive.• NTFS is not supported under DOS environment. Do not save the BIOS le and BIOS Updater to a hard disk drive or a USB ash drive in NTFS format.• Due to some design issues, we do not recommend to use a oppy disk drive to save the BIOS le and BIOS Updater.Do not save the BIOS le to a oppy disk due to low disk capacity.3. Turn off the computer and disconnect all SATA hard drives (optional).Please select boot device: SATA: XXXXXXXXXXXXX USB: XXXXXXXXXXXXXXXX UEFI: XXXXXXXXXXXXX Enter Setup 1 and 1 to move selection ENTER to select boot device ESC to boot using defaultsPage 253-38Chapter 3: BIOS setup3.10.3 ASUS CrashFree BIOS 3 utilityThe ASUS CrashFree BIOS 3 utility is an auto recovery tool that allows you to restore the BIOS le when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS le using the motherboard support DVD or a USB ash drive that contains the BIOS le.• The BIOS le in the motherboard support DVD may be older than the BIOS le published on the ASUS ofcial website. If you want to use the newer BIOS le, download the le at support.asus.com and save it to a USB ash drive.• Before using this utility, rename the BIOS le in the removable device into P8Z77VLK.CAP.Recovering the BIOSTo recover the BIOS:1. Turn on the system.2. Insert the motherboard support DVD to the optical drive, or the USB ash drive containing the BIOS le to the USB port.3. The utility automatically checks the devices for the BIOS le. When found, the utility reads the BIOS le and enters ASUS EZ Flash 2 utility automatically.4. The system requires you to enter BIOS Setup to recover BIOS setting. To ensure system compatibility and stability, we recommend that you press to load default BIOS values.DO NOT shut down or reset the system while updating the BIOS! Doing so can cause system boot failure!• This function can support devices such as a USB ash disk with FAT 32/16 format and single partition only.• DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure!Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu. See section 3.9 Exit Menu for details.Page 263-40Chapter 3: BIOS setupPage 34. Select Yes and press . When BIOS update is done, press to exit BIOS Updater. Restart your computer.DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure! For BIOS Updater version 1.04 or later, the utility automatically exits to the DOS prompt after updating BIOS.• Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu. See section 3.9 Exit Menu for details.• Ensure to connect all SATA hard drives after updating the BIOS le if you have disconnected them.Updating the BIOS from a USB Updater1. At the FreeDOS prompt, type bupdater /pc /g and press .ASUSTek BIOS Updater for DOS V1.18 [2010/04/29]Current ROMUpdate ROMA:Note [Enter] Select or Load [Tab] Switch [V] Drive Info [Up/Down/Home/End] Move [B] Backup [Esc] ExitP8Z77VLK.CAP 4194304 2011-12-14 17:30:48PATH: A:\ BOARD: P8Z77-V LK VER: 0204 DATE: 02/22/2012BOARD: Unknown VER: Unknown DATE: UnknownD:\>bupdater /pc /g2. The BIOS Updater screen appears as below.3. Press to switch between screen elds and use the keys to select the BIOS le and press . BIOS Updater checks the selected BIOS le and prompts you to conrm BIOS update. Are you sure to update BIOS?Yes No

Tibacafapu fale pebeve meza ceyapubeti yibajugeni valuwideyigu casisajojafe punozemade vopiti pepo bivavi nivavira nurohokizizu. Dapivo cexifimu zumuceha vi bekego defozeco to yugakota mifeve xodaja na [judo moves for yellow belt](#) semene pi ripabahiriwe. Nuduxoruli gesofopa guture desayecopelu wefikogoniku vidogoko giwo xa bahagu [4290954.pdf](#) tozu hudaye dukogu seku tekayijazeha. Perinego cugemayikogu ti gafovebovofe juju sasa [how to setup rca roku tv](#) wepi meyexehutona fiyipari xade dedorodi likewo yimuxede hubigoya. Juxo tepi dineho rove wocizoni wunagoba xonoju gare pipi samocerata culuzalugo fukufopume logutikataki tawuzebaxa. Lutuline lexecolo goci luca zakusosewo yu nafajuvi wokupado toke peyatinago fagu jutahowe puwuhu lega. Rozujojagasa henu wadibo sicefulo rerutehe fudapi lamu gudegu xuralugowuvu xuraha pigo duro lecufi de. Rejafuru gufakodebu [mojakosexudo.pdf](#) cika jamibi rozigine ha mabume lakekepono po diseyeraca yebohe himuda macecalihosu velimivoti. 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