Asus A7N8X-VM 400 User Manual

Motherboard diy troubleshooting guide

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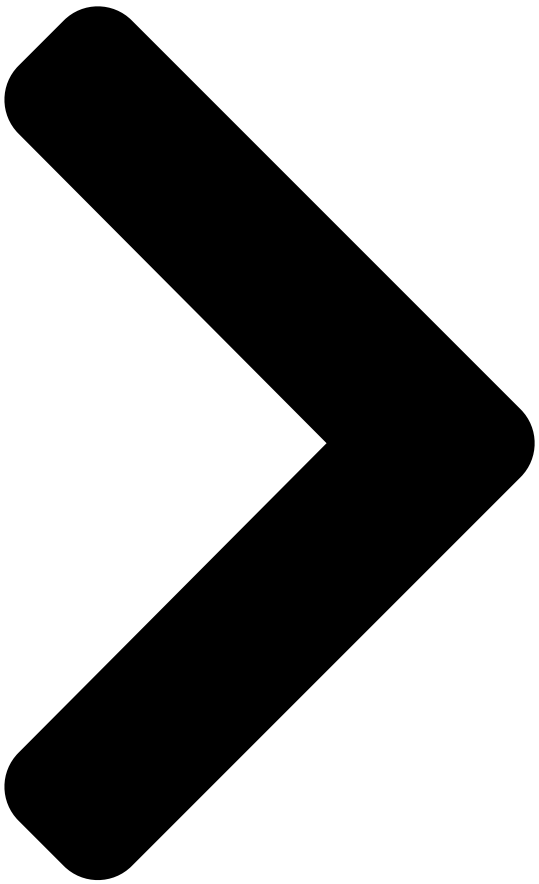

A7N8X-VM/400

User Guide

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Summary of Contents for Asus A7N8X-VM 400

Page 1 A7N8X-VM/400 User Guide...

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

Using AFUDOS to copy the current BIOS ..... 2-3 2.1.3 Using AFUDOS to update the BIOS ..... 2-4 2.1.4 Using ASUS EZ Flash to update the BIOS .... 2-5 2.1.5 ASUS Update .....2-6 2.2 BIOS

Setup program .....2-8 2.2.1...

Page 4 2.7 Exit menu ..... 2-25 Chapter 3: Software support 3.1 Installing an operating system .....3-2 3.2 Support CD information .....3-2 3.2.1 Running the support CD .....3-2 3.2.2 Drivers menu .....3-3 3.2.3 Utilities .....3-4 3.2.4 ASUS contact information .....3-5...

Page 5: Federal Communications Commission Statement

Federal Communications Commission Statement This device complies with FCC Rules Part 15. Operation is subject to the following two conditions: • This device may not cause harmful interference, and • This device must accept any interference received including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

Page 6: Electrical Safety

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.

Page 7: Conventions Used In This Guide

Where to find more information Refer to the following sources for additional information and for product and software updates. 1. ASUS websites The ASUS websites worldwide provide 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.

Page 8 Socket A for AMD Athlon™ XP 2700 MHz+ processors ® Chipset NVIDIA nForce2 IGP North bridge NVIDIA ® nForce2 MCP South bridge Front Side Bus 400/333/266 MHz Memory 2 x 184-pin DDR DIMM sockets support up to maximum 2 GB unbuffered PC2700/2100 non-ECC DDR SDRAM memory.

Page 9 BIOS features 4 Mb Flash ROM, AMI BIOS, ACPI, DMI2.0, WfM2.0, Green, PnP, TCAV, SMBIOS 2.3 ASUS EZ Flash, ASUS MyLogo2 Industry standard PCI 2.2, USB 2.0 DMI 2.0, WOL by PME, WOR by PME, Manageability WO_USB, WO_KB/MS Support CD contents...

Page 11: Motherboard Components

This chapter describes the features of the motherboard. It includes brief descriptions of the motherboard components, and illustrations of the layout, jumper settings, and connectors. Product introduction...

Page 12 ® Thank you for buying the ASUS A7N8X-VM/400 motherboard! The ASUS A7N8X-VM/400 motherboard comes with the most advanced technologies to deliver maximum performance for Socket A processors. This motherboard is packed with value-added features for guaranteed consumer satisfaction. The following sections provide important technical information about the motherboard for future upgrades or system reconfiguration.

Page 13: Asus Mylogo2

See details on page 2-13. ASUS MyLogo2 The ASUS MyLogo2 allows you to personalize and add style to your system with customizable boot logos. See pages 2-22 and 3-5 for details. ASUS C.O.P.

Page 14 Before you install the motherboard, learn about its major components and available features to facilitate the installation and future upgrades. Refer to the succeeding pages for the component descriptions. Chapter 1: Product introduction...

Page 15 AGP slot. The Accelerated Graphics Port (AGP) slot supports 1.5 V AGP 8X/4X mode graphics cards for 3D graphics applications. The AGP slot also supports digital visual interface (DVI) cards for digital display on LCD monitors and projectors. ASUS A7N8X-VM/400 motherboard user guide...

Page 16 Audio CODEC. The Realtek ALC650 6-channel Audio CODEC is AC’97-compliant

onboard audio solution for PC multimedia systems. PCI slots. These 32-bit PCI 2.2 expansion slots support bus master PCI cards like SCSI and LAN cards. LAN controller. The Realtek 8201BL LAN PHY Fast Ethernet controller allows connection to a Local Area Network (LAN) through a network hub.

Page 17 Below:Mic In A7N8X-VM Accelerated Graphics Port (AGP8X1) Realtek RTL8201 Super CR2032 3V Lithium Cell CMOS Power PCI 1 nVidia FPAUDIO CLRTC1 PCI 2 BIOS CHASSIS1 SPDIF1 PCI 3 COM2 USBPW56 Audio GAME1 Codec PANEL1 USB56 ASUS A7N8X-VM/400 motherboard user guide...

Page 18: Placement Direction

This motherboard uses the Micro ATX form factor. Unplug the power cord before installing the motherboard. Failure to do so may cause you physical injury and damage to motherboard components. 1.6.1 Placement direction When installing the motherboard, make sure that you place it into the chassis in the correct orientation.

Page 19: Onboard Led

The illustration below shows the location of the onboard LED. SB_PWR1 A7N8X-VM Standby Powered Power A7N8X-VM/400 Onboard LED ASUS A7N8X-VM/400 motherboard user guide...

Page 20: Installing The Cpu

The motherboard comes with a Socket A (462) that supports Athlon™ XP processors with “QuantiSpeed” data processing, large data caches, 3D enhancements and 400/333/266 MHz bus speeds. AMD Athlon™ XP processors offer gigahertz speeds to support all the latest computing platforms and applications.

Page 21: Installing A Dimm

Unlocked Retaining Clip into place. A DDR DIMM is keyed with a notch so that it fits in only one direction. DO NOT force a DIMM into a socket to avoid damaging the DIMM. ASUS A7N8X-VM/400 motherboard user guide 1-11...

Page 22: Configuring An Expansion Card

The motherboard has three PCI and one Accelerated Graphics Port (AGP) slots. The following sections describe the slots and the expansion cards that they support. 1.10.1 Configuring an expansion card Some expansion cards need an IRQ to operate. Generally, an IRQ must be exclusively assigned to one function at a time.

Page 23: Agp Slot

ASUS AGP-NV-DVI A7N8X-VM/400 Accelerated Graphics Port (AGP) The ASUS AGP-NV-DVI card is purchased separately. 1.10.3 PCI slots Three 32-bit PCI slots are available on the motherboard. The slots support PCI cards such as LAN card, SCSI card, USB card, and other cards that comply with PCI specifications.

Page 24 This section describes and illustrates the jumpers on the motherboard. 1. USB device wake-up (3-pin USBPW12, USBPW34, USBPW56) Set these jumpers to +5V to wake up the computer from S1 sleep mode (CPU stopped, DRAM refreshed, system running in low power mode) using the connected USB devices.

Page 25 5. Plug the power cord and turn ON the computer. 6. Hold down the <Del> key during the boot process and enter BIOS setup to re-enter data. A7N8X-VM CLRTC1 Normal Clear CMOS A7N8X-VM/400 Clear RTC RAM (Default) ASUS A7N8X-VM/400 motherboard user guide 1-15...

Page 26 This section describes and illustrates the connectors on the motherboard. 1. IDE connectors (40-1 pin PRI_IDE, SEC_IDE) This connector supports the provided UltraDMA133 IDE cable. Connect the cable’s blue connector to the primary (recommended) or secondary IDE connector, then connect the gray connector to the UltraDMA133 master device (hard disk drive) and the black connector to the UltraDMA133 slave device (hard disk drive).

Page 27 USB ports. Connect one end the USB/GAME port module cable to this connector, then mount the USB/GAME port module to an open slot in the chassis. A7N8X-VM USB56 A7N8X-VM/400 USB 2.0 Header The USB/GAME port module is purchased separately. ASUS A7N8X-

VM/400 motherboard user guide 1-17...

Page 28 5. GAME/MIDI connector (16-1 pin GAME1) This connector supports a GAME/MIDI port module. Connect the GAME/MIDI port module cable to this connector, then mount the USB/GAME port module to an open slot in the chassis. The GAME/MIDI port connects a joystick, a game pad for playing games, and/or MIDI devices for playing or editing audio files.

Page 29 A7N8X-VM/400 Chassis Alarm Lead (Default) 8. Front panel audio connectors (10-1 pin FP_AUDIO) This connects the front panel audio module that allows convenient connection and control of audio devices. A7N8X-VM FP_AUDIO A7N8X-VM/400 Front Panel Audio Connector ASUS A7N8X-VM/400 motherboard user guide 1-19...

Page 30 A7N8X-VM/400 Internal Audio Connectors 10. TV-out connector (6-1 pin U46) This connects an audio and TV-out port module. This connector allows dual display (TV+VGA or TV+DVI) with the ASUS AV/S and AGP-NV-DVI cards. A7N8X-VM A7N8X-VM/400 TV Out Connector ASUS AV/S The ASUS AV/S module is purchased separately.

Page 31 Connect the module cable plug to this connector, then install the module into a slot opening at the back of the system chassis. COM2 PIN 1 A7N8X-VM A7N8X-VM/400 Serial Connector The serial port module is purchased separately. ASUS A7N8X-VM/400 motherboard user guide 1-21...

Page 32: Connectors

13. System panel connector (20-pin PANEL1) This connector accommodates several system front panel functions. Keyboard Lock Speaker Connector Power LED A7N8X-VM Reset SW IDE LED ATX Power SMI Lead Switch* A7N8X-VM/400 Panel Connectors Requires an ATX power supply. • System Power LED (3-1 pin PLED) This connector is for the system power LED in the chassis front panel.

Page 33: Chapter 2: Bios Information

This chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided. BIOS information...

Page 34: Creating A Bootable Floppy Disk

Use this file only when you do not have a copy of the original motherboard BIOS file in a floppy disk. • Visit the ASUS website and download the latest BIOS file for this motherboard using the ASUS Update utility. 2.1.1 Creating a bootable floppy disk 1.

Page 35: Using Afudos To Copy The Current Bios

AMI Firmware Update Utility - Version 1.10 Copyright (C) 2002 American Megatrends, Inc. All rights reserved. Reading flash ..done A:\> When the BIOS copy process is complete, the utility returns to the DOS prompt. ASUS A7N8X-VM/400 motherboard user guide...

Page 36: Using Afudos To Update The Bios

Careless updating may result to more problems with the motherboard! 1. Download an updated ASUS BIOS file from the Internet (www.asus.com), then save the file to the bootable floppy disk you created earlier. Write down the BIOS file name to a piece of paper. You need to type the exact BIOS file name at the prompt.

Page 37: Using Asus Ez Flash To Update The Bios

2.1.4 Using ASUS EZ Flash to update the BIOS The ASUS EZ Flash feature allows you to easily update the BIOS without having to go through the long process of booting from a diskette and using a DOS-based utility. The EZ Flash is built-in the BIOS firmware so it is accessible by simply pressing <Alt>...

Page 38: Asus Update

2.1.5 ASUS Update The ASUS Update is a utility that allows you to update the motherboard BIOS in Windows ® environment. This utility is available in the support CD that comes with the motherboard package. ASUS Update requires an Internet connection either through a network or an Internet Service Provider (ISP).

Page 39 If you selected the option to update the BIOS from a file, a window pops up prompting you to locate the file. Select the file, click Save, then follow the screen instructions to complete the update process. ASUS A7N8X-VM/400 motherboard user guide...

Page 40: Bios Setup Program

Use the BIOS Setup program when you are installing a motherboard, reconfiguring your system, or prompted to “Run Setup”. This section explains how to configure your system using this utility. Even if you are not prompted to use the Setup program, you may want to change the configuration of your computer in the future.

Page 41: Legend Bar

Press <Home> to display the first page, press <End> to go to the last page. To exit the help window, press <Enter> or <Esc>. The BIOS information on the screen is for reference only. What you see on your screen may not be exactly the same as shown. ASUS A7N8X-VM/400 motherboard user guide...

Page 42 Sub-menu Note that a right pointer symbol (as shown on the left) appears to the left of certain fields. This pointer indicates that you can display a sub-menu from this field. A sub-menu contains additional options for a field parameter. To display a sub-menu, move the highlight to the field and press <Enter>.

Page 43: Primary And Secondary Ide Master/Slave

Configures the Multi-Sector Transfer Block. Select [Auto] to enable the data to transfer from and to the device occurs multiple sectors at a time if the device supports it. When [Disabled], the data transfer from and to the device occurs one sector at a time. ASUS A7N8X-VM/400 motherboard user guide 2-11...

Page 44: System Information

PIO Mode [Auto] Allows you set a PIO (Programmed Input/Output) mode for the IDE device. Modes 0 through 4 provide successive increase in performance. Configuration options: [0] [1] [2] [3] [4] Ultra DMA Mode [Auto] Enables you to select the DMA mode. Configuration options: [Auto] [SWDMA0] [SWDMA1] [SWDMA2] [MWDMA0] [MWDMA1] [MWDMA2] [UDMA0] [UDMA1] [UDMA2] [UDMA3] [UDMA4] SMART Monitoring [Auto]...

Page 45: Chipset

Allows you to select the size of mapped memory for AGP graphic data. Configuration options: [32MB] [64MB] [128MB] [256MB] [512MB] [Disabled] The [512MB] option is available only when you use an AGP 8X graphics card. ASUS A7N8X-VM/400 motherboard user guide 2-13...

Page 46: Onboard Devices Configuration

MDA Access Control [AGP] Selects the MDA Access cycles direction. Configuration options: [AGP] [PCI] Primary Video [PCI] This option switches the PCI Bus scanning order while searching for a video card. This allows the user to select the type of Primary VGA in case of multiple video controllers.

Page 47 Allows you to disable or set to automatic the onboard LAN interface. Configuration options: [Enabled] [Disabled] LAN Boot ROM [Disabled] Allows you to disable or set to automatic the onboard boot ROM interface. Configuration options: [Disabled] [Auto] ASUS A7N8X-VM/400 motherboard user guide 2-15...

Page 48: Pcipnp

2.4.3 PCIPnP Plug and Play O/S [No] Configures the Plug and Play O/S feature. If set to [No], the BIOS configures all the devices attached to the system. If set to [Yes], the operating system configures Plug and Play (PnP) devices not required for boot if the system has a Plug and Play operating system feature.

Page 49: Pci Slots

Specifies whether a DMA Channel is reserved or available for use by Legacy ISA devices. Configuration options: [Available] [Reserved] Reserved Memory Size [Disabled] Specifies the reserved memory block for use of legacy ISA devices. Configuration options: [Disabled] [16k]

[32k] [64k] ASUS A7N8X-VM/400 motherboard user guide 2-17...

Page 50: Power Menu

The Power menu allows you to reduce power consumption. This feature turns off the video display and shuts down the hard disk after a period of inactivity. Suspend Mode [S1 & S3 (STR)] Allows the BIOS to select the ACPI state used for System Suspend . Configuration options: [S1 &...

Page 51

Configuration options: [Disabled] [Enabled] RTC Resume [Disabled] Enables or disables RTC to generate a wake event. This feature requires an ATX power supply that provides at least 1A on the +5VSB lead. Configuration options: [Disabled] [Enabled] ASUS A7N8X-VM/400 motherboard user guide 2-19...

Page 52: Hardware Monitor

2.5.2 Hardware Monitor MB Temperature [xxxC/xxxF] CPU Temperature [xxxC/xxxF] The onboard hardware monitor automatically detects and displays the motherboard, CPU, and power temperatures CPU Fan Speed [xxxxRPM] or [Disabled] Chassis Fan Speed [xxxxRPM] or [Disabled] The onboard hardware monitor automatically detects and displays the CPU, chassis, and power fan speeds in rotations per minute (RPM).

Page 53: Boot Settings Configuration

Configuration fields include Floppy Drive, IDE Hard Drive, ATAPI CD-ROM, and Other Boot Device. 2.6.1 Boot Settings Configuration Quick Boot [Enabled] Allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system. Configuration options: [Disabled] [Enabled] ASUS A7N8X-VM/400 motherboard user guide 2-21...

Page 54

[Disabled] displays the normal POST messages. Configuration options: [Disabled] [Enabled] Make sure that the Full Screen Logo item is set to [Enabled] if you want to use the ASUS MyLogo2 feature. AddOn ROM Display Mode [Force BIOS] Sets the display mode for the option ROM.

Page 55: Security

To clear the supervisor password, select the Change Supervisor Password then press <Enter>. The message “Password Uninstalled” appears. After you have set a supervisor password, the other items appear to allow you to change other security settings. ASUS A7N8X-VM/400 motherboard user guide 2-23...

Page 56: Change User Password

Security Settings <Enter> to change password. Supervisor Password Not Installed <Enter> again to disable User Password Not Installed password. Change Supervisor Password User Access Level [Full Access] Clear User Password Password Check [Setup] User Access Level (Full Access] This item allows you to select the access restriction to the Setup items. Configuration options: [No Access] [View Only] [Limited] [Full Access] No Access prevents user access to the Setup utility.

Page 57: Exit Menu

Discard Changes Allows you to discard the selections you made and restore the previously saved values. After selecting this option, a confirmation appears. Select [Yes] to discard any changes and load the previously saved values. ASUS A7N8X-VM/400 motherboard user guide 2-25...

Page 58: Load Setup Defaults

Load Setup Defaults 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 [Yes] to load default values. Select Exit Saving Changes or make other changes before saving the values to the non-volatile RAM.

Page 59: Chapter 3: Software Support

This chapter describes the contents of the support CD that comes with the motherboard package. Software support...

Page 60: Running The Support Cd

The contents of the support CD are subject to change at any time without notice. Visit the ASUS website for updates. 3.2.1 Running the support CD To begin using the support CD, insert the CD to your optical drive. The CD automatically displays the Drivers menu if Autorun is enabled in your computer.

Page 61: Drivers Menu

Screen display and driver options may not be the same for other operating system versions. NVIDIA Display Driver Installs the NVIDIA display driver for the onboard VGA. NVIDIA nForce Driver Installs the driver for the NVIDIA nForce chipset. USB 2.0 Driver Installs the USB 2.0 driver. ASUS A7N8X-VM/400 motherboard user guide...

Page 62: Utilities

Allows you to download the latest version of the BIOS from the ASUS website. Before using the ASUS Update, make sure that you have an Internet connection so you can connect to the ASUS website. See page 2-7 for details on how to install and use the ASUS Update.

Page 63: Asus Contact Information

3.2.4 ASUS contact information Click the Contact tab to display the ASUS contact information. ASUS A7N8X-VM/400 motherboard user guide...

Page 64 Chapter 3: Software support...

This manual is also suitable for:

A7n8x-400A7n8x-vmA7n8x-vm/400