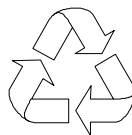


# **M11A System**

## **User's Guide**



100% Recycled Paper

---

## **Copyright**

Copyright © 1996 by this company. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of this company.

## **Disclaimer**

This company makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, this company reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

Intel is a registered trademark of Intel Corporation.

Pentium Pro is a trademark of Intel Corporation.

PS/2 is a trademark of International Business Machines Corporation.

Other brand and product names are trademarks and/or registered trademarks of their respective holders.

---

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save these instructions for future reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

- 
10. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed 15 amperes.
  11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
  12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
  13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    - a. When the power cord or plug is damaged or frayed
    - b. If liquid has been spilled into the product
    - c. If the product has been exposed to rain or water
    - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.
    - e. If the product has been dropped or the cabinet has been damaged
    - f. If the product exhibits a distinct change in performance, indicating a need for service

- 
14. Replace battery with the same type as the product's battery we recommend. Use of another battery may present a risk of fire or explosion. Refer battery replacement to a qualified serviceman.
  15. Warning! Battery may explode if not handled properly. Do not recharge, disassemble or dispose of in fire. Keep away from children and dispose of used battery promptly.
  16. Use only the proper type of power supply cord set (provided in your keyboard/manual accessories box) for this unit. It should be a detachable type: UL listed/CSA certified, type SVT/SJT, rated 6A 125V minimum, VDE approved or its equivalent. Maximum length is 15 feet (4.6 meters).

---

## **FCC Class B Radio Frequency Interference Statement**

### **Note:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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:

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

### **Notice 1:**

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **Notice 2:**

Shielded interface cables, if any, must be used in order to comply with the emission limits.

---

## About this Manual

### Purpose

This user's guide aims to give you the information you need to operate the system properly and tells you how to install internal components.

### Manual Structure

This user's guide consists of three chapters.

#### *Chapter 1    System Board*

This chapter describes the system board and all its major components. It contains the system board layout, jumper settings, cache and memory configurations, and information on other internal devices.

#### *Chapter 2    BIOS Utility*

This chapter gives information about the system BIOS and tells how to configure the system by changing the settings of the BIOS parameters.






#### *Chapter 3    System Utilities*

This chapter tells how to use the AFlash BIOS Utility and the SCSI*Select* Configuration Utility.

---

# Conventions

The following conventions are used in this manual:

Text entered by user	Represents text input by the user.
<div>Screen messages</div>	Denotes messages that appear onscreen.
<div>ALT, ENTER, F8, etc.</div>	Represent the actual keys that you have to press on the keyboard.
<div></div>	<b>NOTE</b> Gives bits and pieces of additional information related to the current topic.
<div></div>	<b>WARNING</b> Alerts you to any damage that might result by not following the instructions.
<div></div>	<b>CAUTION</b> Gives precautionary measures to avoid possible hardware or software problems.
<div></div>	<b>IMPORTANT</b> Reminds you to take specific actions relevant to the accomplishment of procedures.
<div></div>	<b>TIP</b> Tells how to accomplish a procedure with minimum steps through little shortcuts.



---

## Table of Contents

### Chapter 1 System Board

1.1	Features .....	1-1
1.2	Major Components.....	1-2
1.2.1	System Board Layout .....	1-3
1.3	Jumpers and Connectors .....	1-4
1.3.1	Jumper and Connector Locations .....	1-4
1.3.2	Jumper Settings .....	1-5
1.3.3	Connector Functions.....	1-8
1.4	ESD Precautions.....	1-10
1.5	Installing a Pentium Pro CPU.....	1-11
1.5.1	Installation with the Sliding Heat Sink .....	1-11
1.5.2	Installation with the Hook-Type Heat Sink.....	1-13
1.6	Memory Upgrade .....	1-15
1.6.1	Rules for Adding Memory .....	1-15
1.6.2	Memory Configurations .....	1-16
1.6.3	Installing a SIMM.....	1-17
1.6.4	Removing a SIMM.....	1-18
1.6.5	Reconfiguring the System.....	1-19
1.7	SCSI Feature .....	1-20
1.7.1	Using the SCSI Feature.....	1-20
1.8	Server Management Features (optional) .....	1-21
1.8.1	ASM Pro.....	1-21
1.8.2	Remote Diagnostic Management.....	1-22

---

1.9	Error Messages.....	1-24
1.9.1	Software Error Messages .....	1-24
1.9.2	System Error Messages .....	1-24
1.9.3	Correcting Error Conditions .....	1-27

## **Chapter 2 BIOS Utility**

2.1	Entering Setup.....	2-2
2.2	Basic System Configuration .....	2-3
2.2.1	Date and Time .....	2-4
2.2.2	Diskette Drives.....	2-5
2.2.3	IDE Drives.....	2-6
2.2.4	Onboard IDE .....	2-7
2.2.5	System Memory .....	2-8
2.2.6	Math Coprocessor .....	2-8
2.2.7	Video Display .....	2-8
2.2.8	Communication Settings .....	2-8
2.2.9	Enhanced IDE Features .....	2-9
2.2.10	Large Memory Support Mode .....	2-10
2.2.11	Num Lock After Boot.....	2-10
2.2.12	Memory Test.....	2-10
2.2.13	Auto Configuration Mode.....	2-11
2.2.14	Fast Boot Mode.....	2-11
2.2.15	Quiet Boot.....	2-11
2.2.16	Configuration Table.....	2-12
2.3	Advanced System Configuration.....	2-13
2.3.1	Shadow RAM .....	2-14
2.3.2	L1 & L2 Cache (CPU Cache).....	2-14

---

2.3.3	Cache Scheme.....	2-14
2.3.4	ECC/Parity Mode Selection .....	2-15
2.3.5	Operation of ECC .....	2-15
2.3.6	Setting for SNA Cards .....	2-16
2.3.7	Memory at 15MB-16MB.....	2-16
2.4	PCI System Configuration.....	2-17
2.4.1	PCI IRQ Setting.....	2-17
2.4.2	VGA Palette Snoop .....	2-19
2.4.3	Onboard SCSI .....	2-19
2.5	Power Saving Configuration.....	2-20
2.5.1	Power Management Mode.....	2-21
2.5.2	System Wakeup Events .....	2-21
2.6	System Security.....	2-22
2.6.1	Disk Drive Control .....	2-22
2.6.2	Onboard Communication Ports.....	2-24
2.6.3	Onboard PS/2 Mouse (IRQ12).....	2-26
2.6.4	Setup Password.....	2-27
2.6.5	Power On Password .....	2-29
2.7	Load Setup Default Settings.....	2-30
2.8	Remote Diagnostic Configuration.....	2-30
2.9	Leaving Setup.....	2-31
2.10	IDE Hard Disk Types.....	2-32

---

## Chapter 3 System Utilities

3.1	AFlash BIOS Utility .....	3-1
3.1.1	Executing AFlash .....	3-2
3.1.2	Quick Way to Execute AFlash .....	3-3
3.2	SCSI <i>Select</i> Configuration Utility .....	3-4
3.2.1	Overview .....	3-4
3.2.2	Utility Options .....	3-6
3.2.3	Configuring Multiple SCSI Controllers .....	3-20
3.2.4	Disk Drives Over 1 GByte .....	3-21

---

## List of Figures

1-1	System Board Layout .....	1-3
1-2	Jumper and Connector Locations .....	1-4
1-3	USB Bracket Installation.....	1-9
1-4	Attaching the Sliding Heat Sink to the CPU .....	1-11
1-5	Installing a CPU with the Sliding Heat Sink.....	1-12
1-6	Installing the Hook-Type Heat Sink and Fan.....	1-13
1-7	Installing a SIMM .....	1-17
1-8	Removing a SIMM .....	1-18
1-9	Installing the RDM Module .....	1-22
1-10	Connecting the RDM Cable .....	1-23
3-1	Options Menu Screen.....	3-6
3-2	Configure/View Host Adapter Settings Screen .....	3-7
3-3	Host Adapter SCSI ID Selections .....	3-8
3-4	SCSI Parity Checking Selections.....	3-9
3-5	Host Adapter SCSI Termination .....	3-10
3-6	Boot Device Configuration.....	3-11
3-7	SCSI Device Configuration.....	3-12
3-8	Advanced Configuration Options .....	3-15
3-9	SCSI Disk Utilities Screen .....	3-18

---

## List of Tables

1-1	Jumper Settings .....	1-5
1-2	CN13 Settings for CPU Core/Bus Frequency Ratio.....	1-6
1-3	CN14 Settings for CPU Core Voltage .....	1-7
1-4	Connector Functions .....	1-8
1-5	Memory Configurations .....	1-16
1-6	System Error Messages .....	1-25
2-1	Drive Control Settings .....	2-23
2-2	Serial Port 1 Settings .....	2-24
2-3	Serial Port 2 Settings .....	2-24
2-4	Parallel Port Settings .....	2-25
2-5	Parallel Port Operation Mode Settings .....	2-26
3-1	Settings for the SCSI Controller and All Devices .....	3-4
3-2	Individual Settings for SCSI Drives .....	3-5