

- 1 -----> POWER GOOD
- 2 -----> + 5V DC
- 3 -----> +12V DV
- 4 -----> - 12V DV
- 5,6,7,8, -----> GND
- 9 -----> -5V DC
- 10,11,12 -----> +5V DV

KB1: KEYBOARD CONNECTOR

- J1: E.IIDE 0 CONNECTOR PRIMARY
- J6: E.IIDE 1 CONNECTOR SECONDARY
- J2: FLOPPY CONNECTOR
- J3: PRINTER PORT CONNECTOR
- J4: SERIAL 1 CONNECTOR
- J5: SERIAL 2 CONNECTOR
- JB1: EPROM FLASH ROM SELECT

EPROM OR 5V FLASH ROM (SST)	1-2
12V FLASH ROM	2-3

CHAPTER 3 BIOS SETUP

3-1 AWARD BIOS SYSTEM SETUP

This section explains how to setup system configuration (CMOS) under the AWARD BIOS. The setup program is stroed in the ROM BIOS. The setup program is stroed in the ROM BIOS on the motherboard rather than on a diskette to enter setup, press the key when the system is booting up. The following menu appears:
Please enter "Standard Coms Setup" to enter the next screen.

PCI/ISA BIOS (2A4KDF91)
COOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD COMOS SEIUP	SUPERVISOR PASSWORD
CHIPSET FEATURS SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PCI CONFIGURATION SETUP	HDD LOW LEVEL FORMAT
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
Time, Date, Hard Disk Type	

STANDARD CMOS SETUP
AWARD SOFTWARE, INC. -----

PCI/ISA BIOS (2A4KDF91)

Date (mm:dd:yy) : Sat, Jan : 1 : 2028

Time (hh:mm:ss) : 1 : 44 : 23

HARD DISKS	TYPE	SIZE	CYL.S	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master :	AUTO	0	0	0	0	0	0	AUTO
Primary Slave :	AUTO	0	0	0	0	0	0	AUTO
Secondary Master :	AUTO	0	0	0	0	0	0	AUTO
Secondary Slave :	AUTO	0	0	0	0	0	0	AUTO

Drive A : 1.2MB, 5.25in.	Base Memory : 640K
Drive B : None	Extended Memory : OK
Video : EGAVGA	Other Memory : 384K
Halt On : All Errors	-----
	Total Memory : 1024K

Esc : Quit	↑ ↓ ← →	Select Item	PU/PD/+/-	Modify
F1 : Help	(Shift) F2 :	Change Color		

2-4 FUNCTION CONNECTOR:

JP1: OFF NORMAL SETTING.

ON DISCHARGE RTC , LOSS CMOS RAM MEMORY.

JP3: ON BOARD E,IDE LED CONNECTOR

1 -- > -

2 -- > +

JP21: SHORD.

JP22: TURBO SWITCH

ON -- > TURBO

OFF -- > DETURBO

JP23: TURBO LED

1 -- > +

2 -- > -

JP24: RESET

JP25: SPEAKER CONNECTOR

1 ----- > +5V DC

2~4 ----- > DATA OUT

JP26: KEYLCK

1 -- > POWER LED +

2 -- > NOT USED

3 -- > POWER LED GND

4 -- > KEYBOARD INHIBITOR

5 -- > GND

D. CPU TYPES SELECTION:

\JUMPER CPU\	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18	JP19	JP27
INTEL DX2 /DX4-S	ON	3-4	OFF	2-3	1-2	3-4	5-6	2-3	OFF	ON
AMD 66 (80) /100, 120	OFF	OFF	OFF	2-3	1-2	OFF	1-2	2-3	ON/ OFF	ON
AND Enhanced	ON	3-4	5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON
Cyrix\ 5x86	ON	3-4	5-6	2-3	1-2	3-4	5-6	2-3	OFF	ON
Cyrix\ T\IBM \SGS DX/DX2 /DX4	ON	5-6	1-2	2-3	1-2	5-6	3-4	2-3	OFF	OFF
P24D	ON	3-4	5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON
P24T	ON	3-4	OFF	1-2	2-3	3-4	5-6	2-3	OFF	ON
INTEL UMC U5 SX	OFF	OFF	OFF	OFF	1-2	OFF	1-2	1-2	OFF	ON
INTEL UMC U5 DX/DX2	OFF	OFF	OFF	2-3	1-2	OFF	1-2	2-3	OFF	ON
INTEL SX-S	ON	3-4	OFF	OFF	1-2	3-4	5-6	1-2	OFF	ON

PCI/ISA BIOS (2A4KDF91)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD COMOS SEUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
Virus Protection. Boot Sequence	

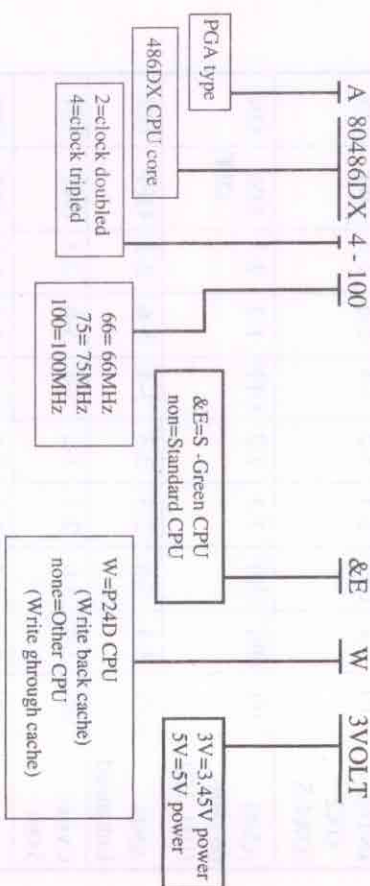
PCI/ISA BIOS (2A4KDPF91)
 BIOS FEATURES SETUP
 AWARD SOFTWARE, INC.

Virus Warning	: Disable	Video BIOS Shadow	: Enable
CPU Internal Cache	: Enable	C8000-CFFFF Shadow	: Disable
External Cache	: Enable	D0000-D7FFF Shadow	: Disable
Quick Power On Self Test	: Disable	D8000-DFFFF Shadow	: Disable
Boot Sequence	: A,C	Esc : Quit	
Swap Floppy Drive	: Disable	F1 : Help	
Boot Up Floppy Seek	: Enable	F5 : Old Values	
Boot Up Numlock Status	: On	F6 : Load Bios Defaults	
Boot Up System Speed	: High	F7 : Load Setup Defaults	
Gate A20 Option	: Fast	↑ ↓ ← → : Select Item	
Memory Parity Check	: Enable	(shift) F2: Change Color	
Typeomatic Rate Setting	: Disable	PU/PD/+/- : Modify	
Typeomatic Rate (Chars/Sec)	: 6		
Typeomatic Delay (Msec)	: 250		
Security Option	: Setup		

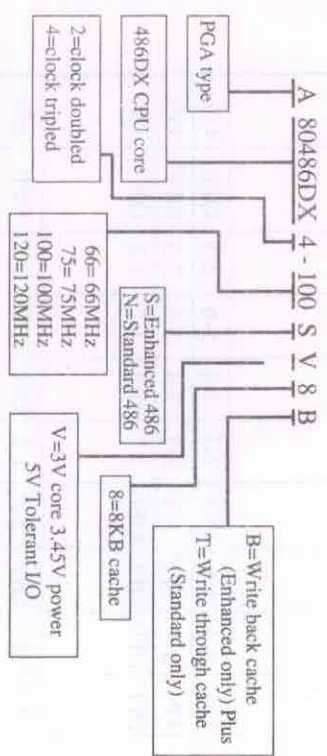
C. CPU nomenclature:

CPU Nomenclature

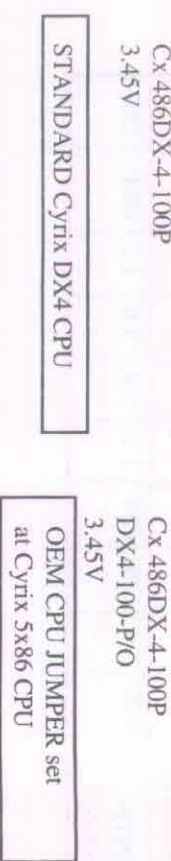
1. INTEL product



2. AMD product



3. Cytrix product



2-3 CPU INSTALLATION

Please check CPU type & use power voltage & pin 1 location before install CPU to ZIF socket.

A. VOLTAGE REGULATOR JUMPER: JP20

VOLTAGE	JP20	J8
5V	OFF	ON
4V	3-5	OFF
3.45V	2-4	OFF
3.3V	1-3	OFF

B. SYSTEM CLOCK SELECTION: JP8, JP9, JP10, JP11

SYSTEM CLK	CPU SPEED (HMZ)	JP8	JP9	JP10	JP11
25 MHZ	SX-25				
	DX2-50	OFF	OFF	1-2	OFF
	DX4-75				
33 MHZ	SX-25				
	DX2-50	ON	ON	1-2	OFF
	DX4-75				
40 HMZ	DX2-80	ON	OFF	2-3	ON
	5X86-120/160				
50 HMZ	5X86-150	OFF	OFF	2-3	ON

PCI/ISA BIOS (2A4KDF91) CMOS SETUP UTILITY AWARD SOFTWARE, INC.

STANDARD COMOS SEIUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
AT Clock, DRAM timing	

-----CHIPSET FEATURES SETUP-----
 AWARD SOFTWARE, INC.

Auto Configuration	: Enable	Onboard FDC Controller	: Enable
AT-BUS Clock	: CLK/4	Onboard Serial Port 1	: COM1/3F8H
DRAM Reed Timing	: Normal	Onboard Serial Port 2	: COM2/2F8H
DRAM Write Timing	: Normal	Onboard Parallel Port	: 278H
SRAM Reed Timing	: 3222		
SRAM Write Timing	: 0 Wait		
Internal Cache WB/WT	: WT		
Hidden Refresh	: Disable		
ISA I/O Recovery	: Disable		
Fast-Back-to-Back	: Disable		
On-Chip Local Bus IDE	: Enable	Esc : Quit	
IDE Buffer for DOS & IDE	: Enable	F1 : Help	
The 2nd channel IDE	: Enable	F5 : Old Values	
IDE HDD Block Mode	: Enable	F6 : Load Bios Defaults	
IDE Primary Master PIO	: Auto	F7 : Load Setup Defaults	
IDE Primary Slave PIO	: Auto	↑ ↓ ← → : Select Item	
IDE Secondary Master PIO	: Auto	(Shift) F2: Change Color	
IDE Secondary Slave PIO	: Auto	PU/PD/+/- : Modify	

CHAPTER 2 INSTALLATION

2-1 SIMM MODULE INSTALLATION

The Terminator PCI system designed to use 72 pin SIMM module, supports 4 bank SD/DD module standard or EDO DRAM.

SIMM1	SIMM2	TOTAL
1MB	NONE	1MB
1MB	1MB	2MB
4MB	NONE	4MB
4MB	4MB	8MB
8MB	NONE	8MB
8MB	8MB	16MB
16MB	NONE	16MB
16MB	16NM	32MB
32MB	NONE	32MB
32MB	32MB	64MB
64MB	NONE	64MB
64MB	64NM	128MB

2-2 SRAM INSTALLATION

This M/B can support cache memory from 128KB up to 512 KB.

CACHE SIZE	TAG SRAM	DATA	JP6	JP7
128KB	8K/16K/32*8	32K*8	2-3	2-3
256KB	16K/32K*8	64K*8	2-3	1-2
512KB	32K*8	128K*8	1-2	1-2

1-3 QUICK TO SETTING (CPU TYPE JUMPER) & (SYSTEM CLOCK JUMPER)

CPU TYPE (MHZ)	JP5	JP8	JP9	JP10	JP11	JP12	JP13	JP14	JP15	JP16	JP17	JP18	JP19	JP27
INTEL SX, UMC SX-25 MHZ	off	off	off	1-2	off	off	off	off	1-2	off	1-2	1-2	1-2	on
INTEL SX, UMC SX-33 MHZ	on	on	on	1-2	off	off	off	off	1-2	off	1-2	1-2	1-2	on
INTEL SX-S, 25 MHZ	on	off	off	1-2	off	3-4	off	off	1-2	3-4	5-6	1-2	1-2	on
INTEL SX-S, 33 MHZ	on	on	on	1-2	off	3-4	off	off	1-2	3-4	5-6	1-2	1-2	on
INTE, UMC DX/DX2/DX4 3366/100 HMZ	off	on	on	1-2	off	off	off	2-3	1-2	off	1-2	2-3	off	on
INTEL DX2/SDX.S, 3366/100 HMZ	on	on	on	1-2	off	3-4	off	2-3	1-2	3-4	5-6	2-3	off	on
AMD 486DX2-50 HMZ	off	off	off	1-2	off	off	off	2-3	1-2	off	1-2	2-3	on	on
AMD 486DX2-66 HMZ	off	on	on	1-2	off	off	off	2-3	1-2	off	1-2	2-3	on	on
AMD 486DX2-80 HMZ	off	on	off	2-3	on	off	off	2-3	1-2	off	1-2	2-3	on	on
AMD 486DX4-100 HMZ	off	on	on	1-2	off	off	off	2-3	1-2	off	1-2	2-3	off	on
AMD 5X86-133 HMZ	on	on	on	1-2	off	3-4	1,3,5,6	2-3	2-3	3-4	5-6	2-3	off	on
AMD 5X86-150 HMZ	on	off	on	2-3	on	3-4	5-6	2-3	2-3	3-4	5-6	2-3	off	on
AMD 5X86-160 HMZ	on	on	off	2-3	on	3-4	1,3,5,6	2-3	2-3	3-4	5-6	2-3	off	on
Cyrix, TL, IBM, SGS	on	on	on	1-2	off	5-6	1-2	2-3	1-2	5-6	3-4	2-3	off	off
DX/DX2/DX4, 3366/100 HMZ														
Cyrix 5X86-100 HMZ	on	on	on	1-2	off	3-4	5-6	2-3	1-2	3-4	5-6	2-3	off	on
Cyrix 5X86-120 HMZ	on	on	off	2-3	on	3-4	5-6	2-3	1-2	3-4	5-6	2-3	off	on

If you not found cpu type in the section, please refer 2-3 CPU INSTALLATION.

PC/ISA BIOS (2A4KDF91)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD COMOS SEUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
Sleep timer, Suspend timer	

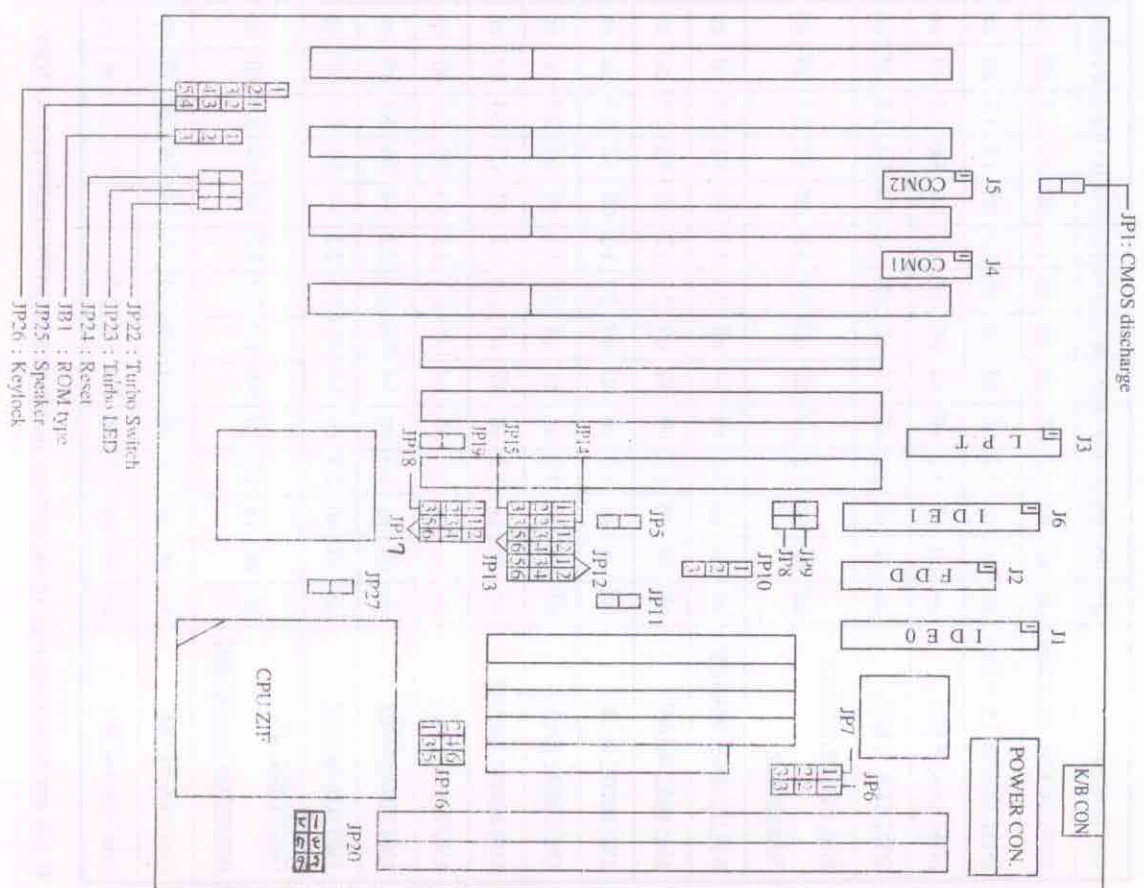
PCI/ISA BIOS (2A4KDF91)

POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

Power Management	: Disable	IRQ6 (Floppy Disk)	: ON
PM Control by APM	: Yes	IRQ7 (LPT1)	: ON
Video Off Option	: Susp.Stby->OFF	IRQ8 (RTC Alarm)	: OFF
Video Off Method	: V/H SYNC+Blank	IRQ9 (IRQ2 Redir)	: ON
		IRQ10 (Reserved)	: OFF
** PM Timers **		IRQ11 (Reserved)	: OFF
HDD Power Down	: Disable	IRQ12 (PS/2 Mouse)	: ON
Doze Mode	: Disable	IRQ13 (Coprocessor)	: OFF
Standby Mode	: Disable	IRQ14 (Hard Disk)	: ON
Suspend Mode	: Disable	IRQ15 (Reserved)	: OFF
** PM Events **			
VGA	: OFF	Esc : Quit	
FDD (3FXb)	: ON	F1 : Help	
LPT & COM	: LPT/COM	F5 : Old Values	
HDD (1FXb)	: ON	F6 : Load Bios Defaults	
NMI	: OFF	F7 : Load Setup Defaults	
IRQ3 (COM2)	: ON	↑ ↓ ← → : Select Item	
IRQ4 (COM1)	: ON	(Shift) F2: Change Color	
IRQ5 (LPT1)	: ON	PU/PD+/-/ : Modify	

NOTE : This M/B can't support UMC U5 CPU DEEP GREEN function.

1-2 Connectors & Jumpers



6. Build in

- 4*ISA MASTER BUS
- 3*PCI V2.0 MASTER BUS
- 2*EIDE SUPPORTS 4 HIGH CAP. DRIVER
- 2*SERIAL PORT HIGH SPEED 16C550 UART
- 1*E.FDC SUPPORTS 2.88MB FDD
- 1*PARALLEL PORT

PC/ISA BIOS (2A4KDF91)
 ----- CMOS SETUP UTILITY -----
 AWARD SOFTWARE, INC.

STANDARD COMS SETUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
ROWER MANAGEMENT SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
IRQ Setting, Latency Timers	

PCI/ISA BIOS (2A4KDP91)

PCI CONFIGURATION SETUP
AWARD SOFTWARE, INC.

PnP BIOS Auto-Config	: Disable	CPU to PCI Write Buffer	: Enable
Slot 1 Using INT #	: Auto	CPU to PCI Byte Merge	: Enable
Slot 2 Using INT #	: Auto	PCI to DRAM Buffer	: Enable
Slot 3 Using INT #	: Auto		
1st Available IRQ	: 9	Esc : Quit	
2nd Available IRQ	: 11	F1 : Help	
3rd Available IRQ	: 12	F5 : Old Values	
4th Available IRQ	: 5	F6 : Load Bios Defaults	
PCI IRQ Activated By	: Edge	F7 : Load Setup Defaults	
PCI IDE 2nd Channel	: ENABLE	↑ ↓ ← → : Select Item	
PCI IDE IRQ Map To	: PCI-AUTO	(Shift) F2: Change Color	
Primary IDE INT #	: A	PU/PPD/+/-: Modify	
Secondary IDE INT	: B		

CHAPTER 1 INTRODUCTION

1-1 INTRODUCTION

OVERVIEW

The 486 PCI GREEN M/B provides a highly integrated solution for fully compatible high performance PC/AT platforms. The M/B supports 486 family & 486 S-erial GREEN microprocessors in the most effective and power efficient designs.

SYSTEM FEATURES

1. SUPPORTS CPU: 5V/4V/3.45V/3.3V POWER SUPPLY

- INTEL 486SX/DX/DX2/DX4,P24D,P24T
- AMD 486DX/DX2/DX4 & ENHANCED CPU
- Cyrix M6/M7/DX4/5x86
- TI 486DX/DX2
- IBM 486DX/DX2
- SGS 486DX/DX2
- UMC U55XX/DX/DX2

2. SUPPORTS 72PIN SIMM*2 (4 BANK SD/DD) UP TO 128MB (Standard or EDO DRAM)

3. SUPPORTS 1 BANK W/B CACHE SRAM UP TO 512KB

EROM: ISSI IS28F010A-45W 8484201P4 9616
 Award Bios (1995) 07/02/96-ALI-1487/89-
 BIOS ISA 486 2A4KD008C-
 S/N 028826045 V 4.51RG
 TERMINATOR 486/5x86 PCI-432 MB MAY 22/96

TS-486-1.1 1 TS-100656
 TANS TSS188 ALI M5818P

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CPU TYPE SELECTION 8

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CHAPTER 3 BIOS SETUP

3-1 AWARD BIOS SYSTEM SETUP 11

* All brand names and trademarks are the property of their respective owners.

PC/ISA BIOS (2A4KDF91)
 ----- CMOS SETUP UTILITY -----
 AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP	
DEFAULTS	
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
Save data to Cmos and Exit	

PCI/ISA BIOS (2A4KDF91)

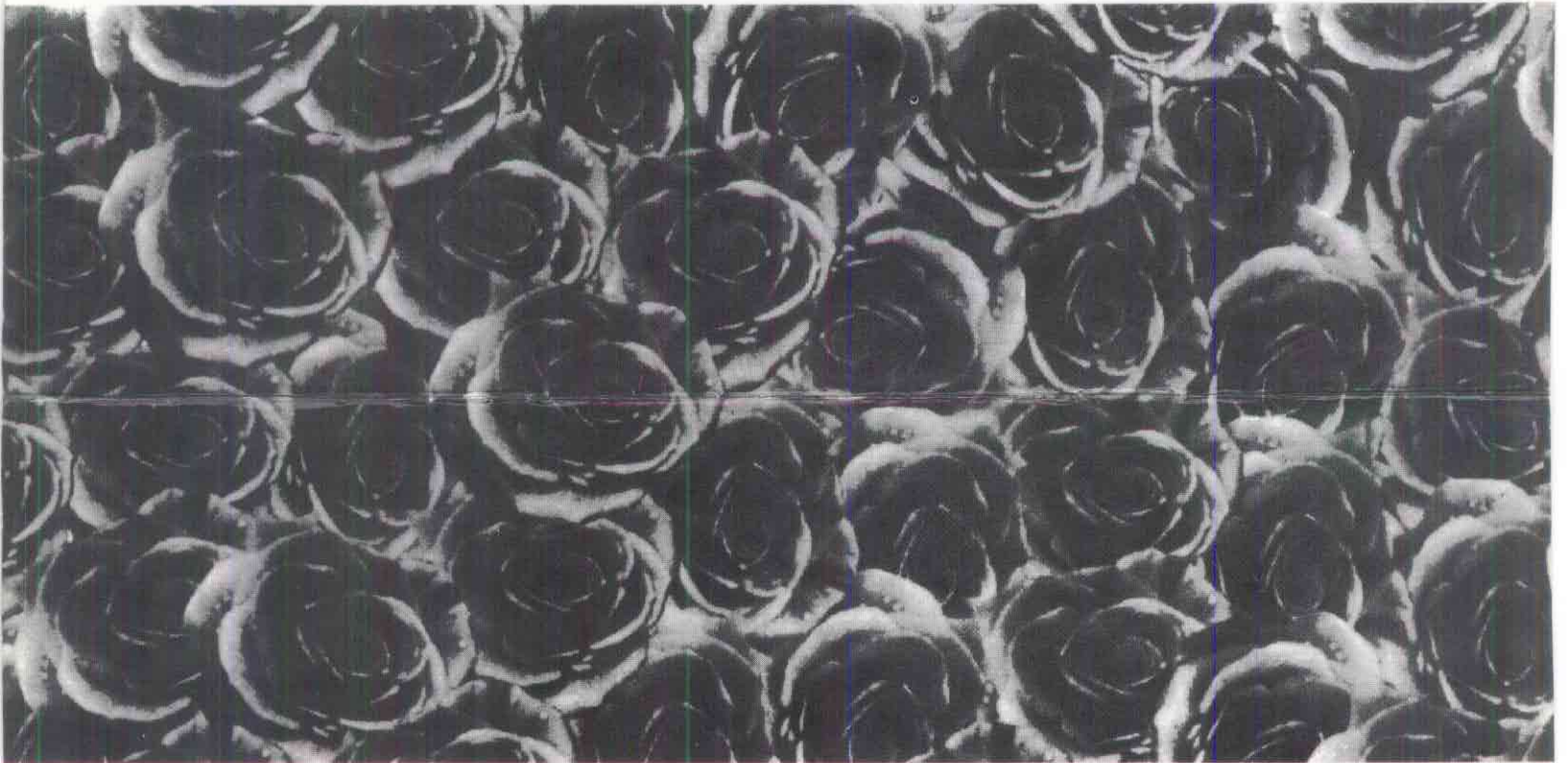
CMOS SETUP UTILITY

AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	Save to Cmos and Exit ? Y
LOAD SETUP DEFAULTS	
Esc: Quit	↑ ↓ ← → : Select Item
F10: Save & Exit Setup	(Shift) F2: Change Color
Save Data to Cmos & Exit	

MAINBOARD USER'S MANUAL

P4186



**MAINBOARD
USER'S MANUAL**

9374