

25/33/40/50MHz 80486

*Turbo Main Board*

MB

-1425UCV

-1433UCV

-1440UCV

-1450UCV



*Users  
Manual*

**Thanks for your  
smart choice of our product  
From now on you will enjoy the  
highest quality  
&  
the best after sale service**

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## ***Chapter 1. Introduction***

### **1.1 System Overview**

The mainboard is a two-chip mainboard providing optimal performance for 486DX/DX2, 486 OverDrive™, 486SX/487SX, P24T and Cyrix Cx 486S based PC/AT system. The mainboard is designed for systems running at frequencies of 25/33/40/50MHz. It is ideal for multi-tasking and fully supports MS/DOS, Novell, UNIX/ZENIX and OS/2, etc. The ideal choice for your computing needs.

### **1.2 Features**

- ❑ Support 486DX CPU speed up to 25/33/40/50MHz
- ❑ Support 486DX2 CPU speed up to 50/66MHz internally
- ❑ support 486SX/487SX speed up to 20/25/33MHz
- ❑ Support 486 OverDrive™ speed up to 50/66MHz internally
- ❑ Support P24T, Cyrix Cx 486S CPU and Cyrix Cx 487S
- ❑ Provide a 238-pin BAZ (Bail Actuated Zero Insertion Force) PGA (Pin Grid Array) production socket for 486DX/DX2, 487SX, 486OverDrive™, P24T and Cx 486S CPU
- ❑ Provide optional package for 486SX CPU:
  - (1) A 238-pin BAZ (Bail Actuated Zero Insertion Force) PGA (Pin Grid Array) production socket
  - (2) a small footprint 196-pin Plastic Quad Flat Pack (PQFP) package
- ❑ Use 82C3491 chip plus 82C3493
- ❑ AMI legal BIOS
- ❑ Support Hardware and Software turbo control
- ❑ A memory controller that provides shadow RAM and supports 8-bit BIOS ROM

- Bus I/O clock 8MHz for maximum compatibility with add on cards
- 8042 Emulation for Fast CPU Reset and Gate A20 generation
- Support: (1) 256K/1M/4M/16M SIMM Module (8-bit)  
(2) 1M/2M/4M/8M/16M SIMM Module (32-bit)
- Support DRAM memory up to 64MB on board
- DRAM Type: page mode, 80ns required
- Flexible cache RAM size 32KB/64KB/128KB/256KB
- Provide one 8-bit slot, six 16-bit slots and two(or three) VESA Bus master slots
- Dimension: 8.6" x 10.2"(W x L)
- Offers the highest performance for MS/DOS, OS/2 Windows, Novell, UNIX/ZENIX system, etc.

### 1.3 System Performance

CPU Type/ Test Under Software	Landmark Ver 0.99	Landmark Ver 1.14	Power Meter MIPS Ver 1.7
486SX/DX-25MHz	130.5	114.1	11.0
486SX/DX-33MHz	167.8	151.9	14.7
486DX-40MHz	195.7	170.9	17.1
486DX-50MHz	234.9	>200 *	21.4
486DX2-50MHz	234.9	>200 *	21.8
486DX2-66MHz	293.6	>200 *	26.7

#### CPU Versus Oscillator:

CPU	486DX-25/DX2-50	486DX-33/DX2-66	486DX-40	486DX-50
OSC	25MHz	33MHz	40MHz	50MHz

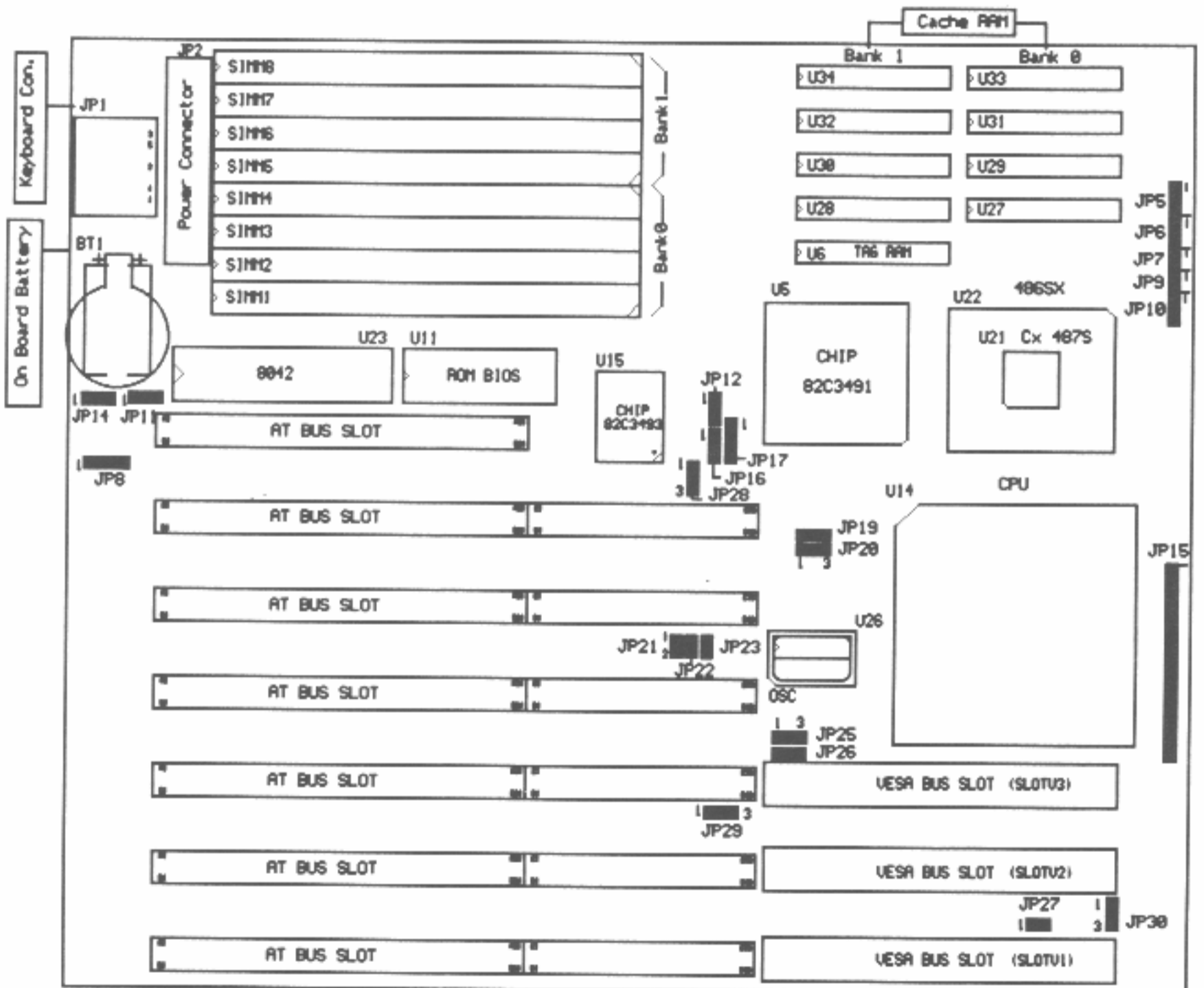
\* Under "Landmark Ver 2.0" the speed in 486DX-50/486DX2-50/486DX2-66 will be 167.7MHz/167.63MHz/222.72MHz.



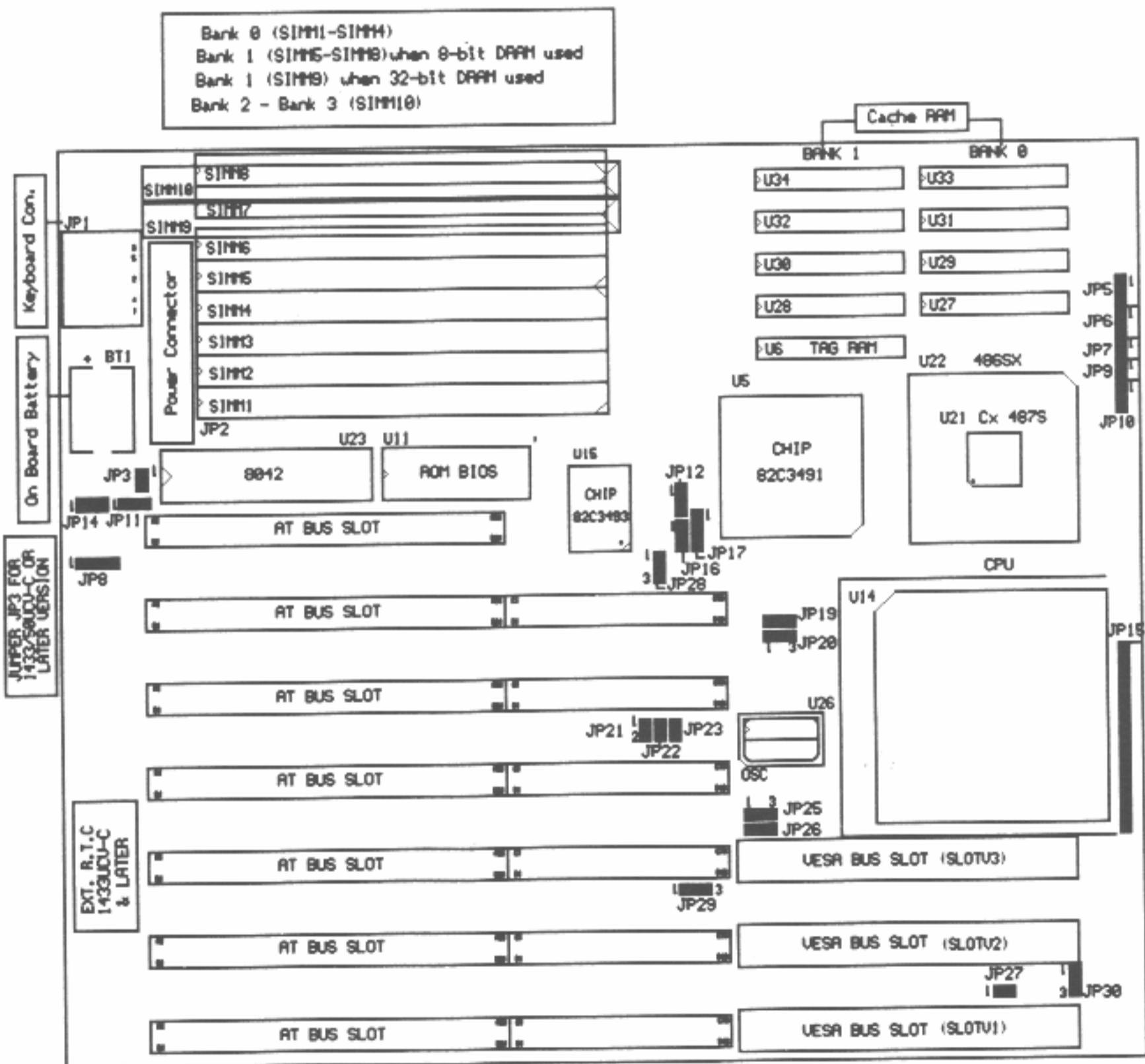
# Chapter 2. Mainboard Installation

## 2.1 Layout of Mainboard

Model No. MB-1425/33/40/50UCV-A



Model No. MB-1425/33/40/50UCV-B &  
Model No. MB-1425/33/40/50UCV-C &  
Model No. MB-1425/33/40/50UCV-D

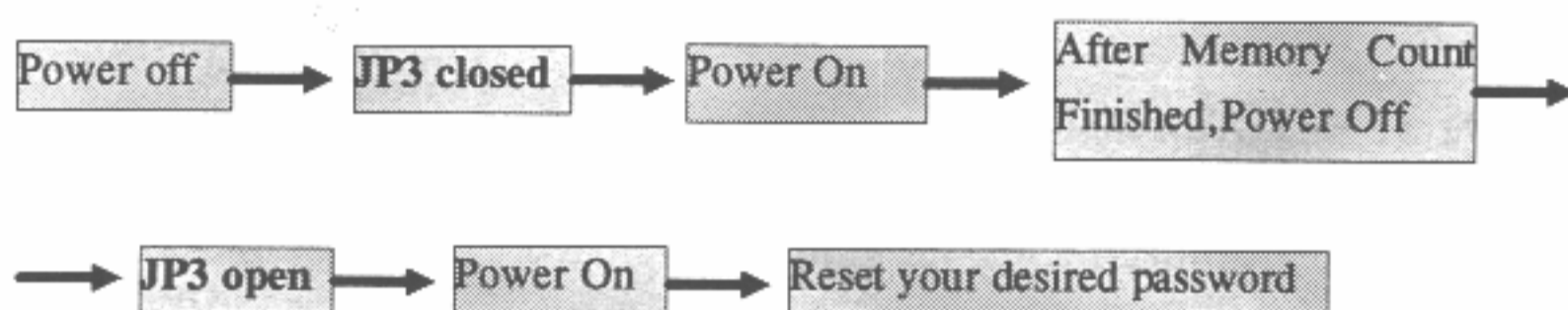


## 2.2 Jumper Settings


























A jumper is several pins which may, or may not be covered by a plastic connector plug. A jumper is used to select different system options.

### \* JP3 Clear BIOS Password

Note: Please follow the procedure below to clear BIOS password when your password was missed or forgot.



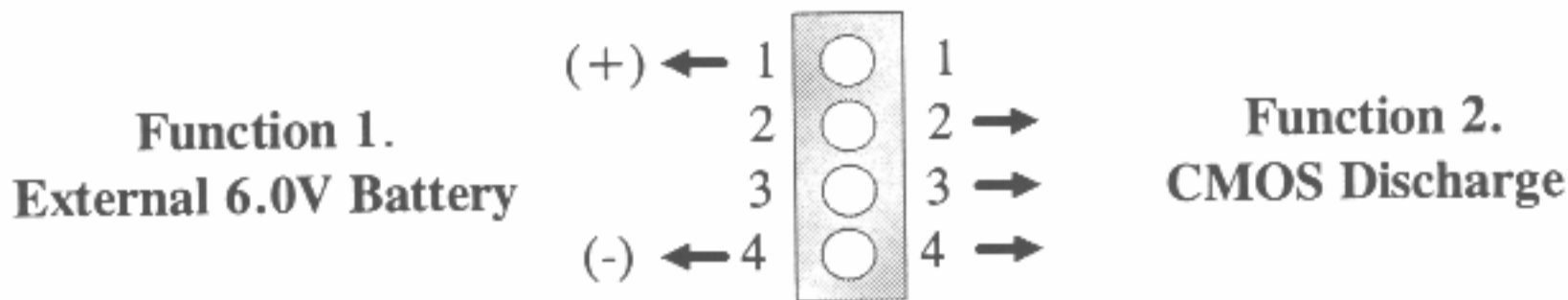
### (A) JP5,JP6,JP7,JP9,JP10 Cache RAM Size Setting

Jumper No./ SRAM size	32K	64K	128K	* 256K	256K
<b>JP5</b>	1  3 2-3 closed	1  3 1-2 closed	1  3 2-3 closed	1  3 1-2 closed	1  3 1-2 closed
<b>JP6</b>	1  3 open	1  3 open	1  3 2-3 closed	1  3 1-2 closed	1  3 1-2 closed
<b>JP7</b>	 open	 open	 closed	 closed	 closed
<b>JP9</b>	 open	 closed	 closed	 closed	 closed
<b>JP10</b>	1  3 open	1  3 open	1  3 open	1  3 2-3 closed	1  3 1-2 closed
TAG RAM	8K x 8	8K x 8	8K x 8	32K x 8	16K x 8 *

\* The main board can support TAG RAM:16Kx8 on condition the title on board is "MB-1433/50UCV-A PCB VER:1.1" or later version.



(B) **JP8** This jumper has two functions, the details as the following:





### Function 1. -- External 6.0V Battery

How to install an external battery on board:







- Step 1: Turn the power off.
- Step 2: Take off the cap of JP8 on board.
- Step 3: Insert the connector of external battery to JP8.







### Function 2. -- CMOS Discharge

1  4    2-3 closed: To maintain set up and extended setup data in CMOS for normal functioning. **(default)**

1  4    3-4 closed: To clear CMOS setup memory, if there has been any inappropriate operation incurring the system is failure.

**!! NOTE !!** After clear CMOS setup memory, please adjust pin 2-3 of JP8 to be closed again. Otherwise the system won't be booted up.

- (C) **JP11** **Power Good Select**
- 1  3      1-2 closed: For power supply power good
- \* 1  3      2-3 closed: For on board power good
- (D) **JP12** **CPU Type Select**
- \* 1  3      1-2 closed: one CPU on board(PQFP or PGA)
- 1  3      2-3 closed: two CPU on board  
(Enabled PGA and Disabled PQFP)
- (E) **JP14** **Monitor Type Select**
- 1  3      1-2 closed: Mono
- \* 1  3      2-3 closed: Color
- (F) **JP16, JP17** **CPU Type Select**

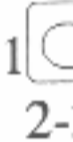

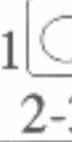



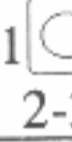




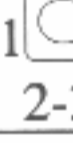


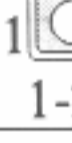
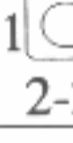
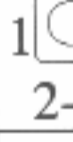

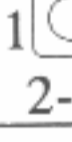

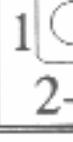
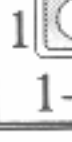
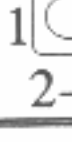
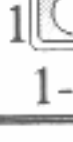
CPU Type	JP16	JP17
P24T/486DX/DX2	* 1  3 1-2 closed	* 1  4 1-2, 3-4 closed
486SX/Cx 486S	1  3 open	1  4 2-3 closed
487SX/486OverDrive™	1  3 2-3 closed	1  4 1-2, 3-4 closed

JP34: OPEN, FOR CYRIX CX486DX CPU  
 JP34: CLOSE, FOR CYRIX CX486DX2 CPU  
 (PCB MB-1433UCV-D VER.X PROVIDES JP34)



\* **Note:** For the better performance and compatibility sake if your main board and the Add-On card are as the following; Please adjust the jumpers as the different position. In the other case, the jumper settings are just for reference. All inquiries should be directed to the retailer.

Main Board : MB-1425/33/40/50UCV-A ver:1.1



Add-On Card : (1) Cirrus VGA card ver:AB  
(2) Cirrus VGA card ver:AC

CPU Speed/Jumpers	VGA Card		VGA Card	
	(Cirrus VGA) ver:AB		(Cirrus VGA) ver:AC	
	M.B.Jumper Settings		M.B. Jumper Settings	
	JP19	JP20	JP19	JP20
487SX 486SX/486DX (25MHz)	 2-3 closed	 1-2 closed	 2-3 closed	 1-2 closed
487SX 486SX/486DX (33MHz)	 2-3 closed	 1-2 closed	 2-3 closed	 1-2 closed
AMD 486DX (40MHz)	 1-2 closed	 1-2 closed	 1-2 closed	 2-3 closed
486DX (50MHz)	 1-2 closed	 1-2 closed	 1-2 closed	 2-3 closed
486DX2-50MHz	 2-3 closed	 1-2 closed	 2-3 closed	 1-2 closed
486DX2-66MHz	 2-3 closed	 1-2 closed	 2-3 closed	 1-2 closed

















**(G) JP19 VESA Bus Address Sync/Async Select**

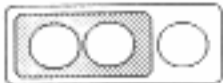









- 1  3      1-2 closed: Asynchronous mode  
 (For CPU speed 40/50MHz only)
- \*1  3      2-3 closed: Synchronous mode

**(H) JP20 VESA Bus DATA Sync/Async Select**

- ✓ \*1  3      1-2 closed: Synchronous mode
- 1  3      2-3 closed: Asynchronous mode


**(I) JP21,JP22,JP23,JP27 CPU Clock Select**

CPU Clock	JP21	JP22	JP23	JP27
25MHz (DX2-50MHz)	 closed	 open	 closed	 open
33MHz (DX2-66MHz)	 closed *	 closed *	 open *	 open *
40MHz	 open	 open	 closed	 closed
50MHz	 open	 closed	 open	 closed

- (J) JP25 VESA Bus (SLOTV2) Clock Select**
- \*1  3 1-2 closed: Synchronous mode
- 1  3 2-3 closed: Asynchronous mode
- (K) JP26 VESA Bus (SLOTV1) Clock Select**
- \*1  3 1-2 closed: Synchronous mode
- 1  3 2-3 closed: Asynchronous mode
- (L) JP28 Add-On Card Select**
- \*1  3 1-2 closed: Normal operation
- 1  3 2-3 closed: Weitek Power 9000 VGA card
- (M) JP29 VESA Bus (SLOTV3) Clock Select**
- 1  3 1-2 closed: Synchronous mode
- ? \*1  3 2-3 closed: Asynchronous mode
- (N) JP30 VESA Bus(SLOTV2 & SLOTV3)Clock Select**
- 1  3 1-2 closed: Synchronous mode  
(NOTE: JP25 must be opened)
- N/A 1  3 2-3 closed: Asynchronous mode

## 2.3 Connectors

(A)

JP15	Pin No.	Assignment	Function
	1	Speaker	Speaker Connector
	2	No Connection	
	3	Ground	
	4	+5Vdc	
	5	Power LED (+)	Power LED & Keylock
	6	No Connection	
	7	Ground	
	8	Keylock	
	9	Ground	Turbo LED
	10	Turbo LED(-)	
	11	Turbo LED(+)	Reset
	12	Reset Control	
	13	Ground	Turbo Switch
	14	Turbo Control	
	15	Ground	
	16	No Connection	+5V, Gnd
	17	+5Vdc	
	18	Ground	



## 2.4 DRAM Installation

DRAM Access Time: 80ns, page mode

DRAM Type : 256KB/1MB/4MB/16MB SIMM Module (8-bit)(30 pin)  
1MB/2MB/4MB/8MB/16MB SIMM Module (32-bit)(72 pin)

Bank x	Position	DRAM Type Supported
Bank 0	SIMM1-SIMM4	256KB/1MB/4MB/16MB (8-bit)(30 pin)
Bank 1	SIMM5-SIMM8	256KB/1MB/4MB/16MB (8-bit)(30 pin)
Bank 1	SIMM9	1MB/4MB/16MB (32-bit)(72 pin)
Bank2-Bank3	SIMM10	1MB/2MB/4MB/8MB/16MB(32-bit)(72 pin)

Note: Each Bank can be installed and worked individually, the mainboard provide optimal performance and freely choices depended on your needed. Figure 2.1 and Figure 2.2 are just for reference.

Figure 2.1 DRAM Combination for 256KB/1MB/4MB/16MB SIMM Module (8-bit)

Memory Size	Bank 0 SIMM1-SIMM4	Bank 1 SIMM5-SIMM8
1M	256K x 4pcs	-----
2M	256K x 4pcs	256K x 4pcs
4M	1M x 4pcs	-----
5M	1M x 4pcs	256K x 4pcs
8M	1M x 4pcs	1M x 4pcs
16M	4M x 4pcs	4M x 4pcs
17M	4M x 4pcs	256K x 4pcs
20M	4M x 4pcs	1M x 4pcs
32M	4M x 4pcs	4M x 4pcs
64M	16M x 4pcs	-----

**Figure 2.2 DRAM combination for 256KB/1MB/4MB/16MB DRAM (8-bit)  
Versus 1MB/2MB/4MB/8MB/16MB DRAM (32-bit)**

Total Memory Size	Bank 0 (SIMM1-SIMM4)	Bank 1 (SIMM9)	Bank 2-Bank 3 (SIMM10)
1M	256K Module x 4pcs	-----	-----
2M	256K Module x 4pcs	1M Module x 1pcs	-----
3M	256K Module x 4pcs	1M Module x 1pcs	1M Module x 1pcs
4M	256K Module x 4pcs	1M Module x 1pcs	2M Module x 1pcs
5M	256K Module x 4pcs	4M Module x 1pcs	-----
6M	256K Module x 4pcs	4M Module x 1pcs	1M Module x 1pcs
8M	1M Module x 4pcs	4M Module x 1pcs	-----
10M	1M Module x 4pcs	4M Module x 1pcs	2M Module x 1pcs
12M	1M Module x 4pcs	4M Module x 1pcs	4M Module x 1pcs
16M	1M Module x 4pcs	4M Module x 1pcs	8M Module x 1pcs
20M	4M Module x 4pcs	4M Module x 1pcs	-----
24M	4M Module x 4pcs	4M Module x 1pcs	4M Module x 1pcs
32M	4M Module x 4pcs	16M Module x 1pcs	-----
36M	4M Module x 4pcs	4M Module x 1pcs	16M Module x 1pcs
48M	4M Module x 4pcs	16M Module x 1pcs	16M Module x 1pcs
64M	16M Module x 4pcs	-----	-----

## 2.5 Cache RAM Combination

SRAM Size /Locate	Even Bank Cache RAM	Odd Bank Cache RAM	Tag RAM	Cacheable Main Memory (MB)
	U27,U29 U31,U33	U28,U30 U32,U34	U6	
32K	8K x 8 x 4pcs	-----	8K x 8 x 1pcs	8
64K	8K x 8 x 4pcs	8K x 8 x 4pcs	8K x 8 x 1pcs	16
128K	32K x 8 x 4pcs	-----	8K x 8 x 1pcs	32
256K	32K x 8 x 4pcs	32K x 8 x 4pcs	16K x 8 x 1pcs	64
256K	32K x 8 x 4pcs	32K x 8 x 4pcs	32K x 8 x 1pcs	64

\* The main board can support TAG RAM:16Kx8 on condition the title on board is "MB-1433/50UCV-A PCB VER:1.1" or later version.

## Chapter 3. BIOS

### Running AMI BIOS:

When the system is powered on, the BIOS will enter the Power-On-Self-Test (POST) routine.

The AMI BIOS performs the various diagnostic checks at the time the system is powered on; if an error is encountered, the error will be reported in one of two different ways. If the error occurs before the display device is initialized, a series of beeps will be transmitted.

If the error occurs after the display device is initialized, the screen will display the error message. In the case of a non-fatal error, a prompt to press the <F1> key may also appear on the screen.

Errors occurring due to any alteration in the system are normally registered as non-fatal errors.

**!!! WARNING !!!** Please boot up the system periodically , in order to keep CMOS SETUP data correct. Otherwise rechargeable battery power is not enough , and CMOS SETUP may lose data.

In the case of a fatal error, certain reference numbers will follow the error message. Copy these down before consulting your manufacturer as this will facilitate the repair of any fault. In the case of a non-fatal error, press <F1> to continue the boot procedure.

After the POST routines are completed, the following message appears:

**"Hit <DEL> if you want to run SETUP"**

To access the AMI BIOS SETUP program, press the <F1> key. The screen in Figure 3.01 will appear.

These are the generic menu options of the BIOS SETUP Program.

### ■ Figure 3.01 BIOS Setup Menu

AMIBIOS SETUP PROGRAM- BIOS SETUP UTILITIES (C) 1993 American Megatrends Inc., All Rights Reserved
<p>STANDARD CMOS SETUP ADVANCED CMOS SETUP ADVANCED CHIPSET SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS AUTO CONFIGURATION WITH POWER-ON DEFAULTS CHANGE PASSWORD AUTO DETECT HARD DISK HARD DISK UTILITY WRITE TO CMOS AND EXIT DO NOT WRITE TO CMOS AND EXIT</p>
Standard CMOS Setup for Changing Time, Date, Hard Disk Type, etc. ESC : Exit, ↓ → ↑ ← :Sel, F2/F3: Color, F10 : Save & Exit

Below is a brief explanation of the high lighted functions:

**1. STANDARD CMOS SETUP :**

Standard CMOS Setup for Changing Time, Date, Hard Disk Type, etc.

**2. AUTO CONFIGURATION WITH BIOS DEFAULTS :**

Load BIOS Setup Default Values for Advanced CMOS and Advanced

Chipset Setup

**3. WRITE TO CMOS AND EXIT :**

Writes the settings to the CMOS and Exit.

**!!! WARNING !!!** *Apart from "STANDARD CMOS SETUP", "AUTO CONFIGURATION WITH BIOS DEFAULTS", "WRITE TO CMOS AND EXIT" , other functions are available in this system we don't recommend that you operate these other functions without first consulting your retailer.*

### 3.1 Standard CMOS Setup

Standard CMOS Setup is the first option on the main SETUP menu. Press <ENTER> at the highlighted selection to access this option . The screen in Figure 3.02 will appear.

■ Figure 3.02 Standard CMOS Setup Screen

AMIBIOS SETUP PROGRAM - STANDARD CMOS SETUP  
(C) 1993 American Megatrends Inc., All Rights Reserved

Date(mn/date/year): Fri, Apr 02 1993 Base memory : 640K  
 Time(hour/min/sec): 15 : 23 : 15 Ext. memory : 0KB

	Cyln	Head	WPcom	LZone	Sect	Size
Hard disk C: type : 47 User Type	1314	7	1314	1314	17	76MB
Hard disk D: type : Not Installed						
Floppy drive A: : 1.2MB , 5 1/4"						
Floppy drive B: : Not Installed						
Primary display : Monochrome						
Keyboard : Installed						

Month : Jan, Feb,.....Dec  
 Date : 01, 02, 03,...31  
 Year : 1901,1902,...2099

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1
2	3	4	5	6	7	8

ESC:EXIT ↓→↑←:Select F2/F3:Color PU/PD:Modify



The Standard CMOS Setup utility is used to configure the following features:

- **Date: Month, Date, and Year.** Ranges for each value are listed below in prompt box in the lower left corner of the CMOS SETUP Screen (Figure 3.02).
- **Time: Hour, Minute, and Second.** Uses 24 hour clock format, i.e., for PM numbers, add 12 to the hour. You would enter 4:30 P.M. as 16:30:00.
- **Hard Disk C and Hard Disk D:** Hard disk types from 1 to 46 are standard ones; type 47 is user definable. The user must enter the hard disk parameters for each drive.

**!! NOTE !!** *The user definition entry allows you to perform a test on a disk drive not defined in ROM. The user definition entry is valid only during the period that the test is performed.*

The drive types are identified by the following characteristics:

- **Type** This is the numerical designation for a drive with certain identification parameters.
- **Cyl.** This is the number of cylinders found in the specified drive type .
- **Heads** This is the number of heads found in the specified drive type.
- **WPcom** WPcom is the read delay circuitry which takes into account the timing differences between the inner and outer edges of the surface of the disk platter. The number designates the starting cylinder of the signal.

- ☐ **L-zone** L-zone is the landing zone of the heads. This number determines the cylinder location where the heads will normally park when the system is shut down.
- ☐ **Capacity** This is the formatted capacity of the drive based on the following formula:

$$(\text{\#of heads}) \times (\text{\#of cylinders}) \times (17 \text{ secs/cyl.}) \times (512 \text{ bytes/sec})$$

- ☐ **Not installed** is available for use as an option. This option can be used for diskless workstations and SCSI hard disks.
- ☐ **Type 47** may be used for both hard disks C and D. The parameters for type 47 under Hard Disk C and Hard Disk D may be different, which effectively allows 2 different user definable hard disk types.
- ☐ **Floppy Drive A and Floppy Drive B:** The options are 360 KB 5 1/4", 1.2 MB 5 1/4", 720 KB 3 1/2", 1.44MB 3 1/2", 2.88MB 3 1/2" and "Not installed". Not installed can be used as an option for diskless work-stations.
- ☐ **Primary Display:** Options are "Monochrome", "Color 40x25", "VGA/PGA/EGA", "Color 80x25", and "Not installed". The "Not Installed" option can be used for network file servers.
- ☐ **Keyboard:** Options are "Installed" or "Not installed".

## 3.2 Advanced CMOS Setup

**!!! WARNING !!!** The values listed below are standard values for the system. Any alteration to these values might cause system failure. All enquiries should be directed to your retailer.

**!! NOTE !!** The information about BIOS defaults on manual is just for reference, for update information, please refer to the BIOS installed on board.

### ■ Figure 3.03 Advanced CMOS Setup Screen

AMIBIOS SETUP PROGRAM - ADVANCED CMOS SETUP			
(C) 1993 American Megatrends Inc., All Rights Reserved			
Typematic Rate Programming	: Disabled	Video ROM Shadow C000,32K	: Enabled
Typematic Rate Delay (msec)	: 500	Adaptor ROM Shadow C800,32K	: Disabled
Typematic Rate (Chars/Sec)	: 15	Adaptor ROM Shadow D000,32K	: Disabled
Above 1 MB Memory Test	: Enabled	Adaptor ROM Shadow D800,32K	: Disabled
Memory Test Tick Sound	: Enabled	Adaptor ROM Shadow E000,64K	: Disabled
Memory Parity Error Check	: Disabled	System ROM Shadow F000,64K	: Enabled
Hit <DEL> Message Display	: Enabled	BootSector Virus Protection	: Disabled
Hard Disk Type 47 RAM Area	: 0:300		
Wait For <F1> If Any Error	: Enabled		
System Boot Up Num Lock	: On		
Numeric Processor Test	: Enabled		
Floppy Drive Seek At Boot	: Enabled		
System Boot Up Sequence	: A: , C:		
System Boot Up CPU Speed	: High		
External Cache Memory	: Enabled		
Internal Cache Memory	: Enabled		
Fast Gate A20 Option	: Enabled		
Password Checking Option	: Setup		
ESC: Exit ↓ →   ← :Sel, (Ctrl)Pu/Pd: Modify, F1: Help, F2/F3: Color			
F5: Old Values, F6: BIOS Setup Defaults, F7: Power-on Defaults			

### 3.3 Advanced Chipset Setup

**!!! WARNING !!!** The values listed below are standard values for the system. Any alteration to these values might cause system failure. All enquiries should be directed to your retailer.

#### ■ Figure 3.04 Advanced Chipset Setup Screen

AMIBIOS SETUP PROGRAM - ADVANCED CHIPSET SETUP	
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AUTO Config Function	: Enabled
Cache Read Option	: 3-2-2-2
Cache Write Option	: 2 W.S.
DRAM Wait State(s)	: 2 W.S.
AT Clock Select	: CPUCLK/6
Memory Remapping	: Disabled
Cyrix Cx487S Math Processor	: Absent
ESC: Exit   → ↑ ← :Sel, (Ctrl)Pu/Pd: Modify, F1: Help, F2/F3: Color F5: Old Values, F6: BIOS Setup Defaults, F7: Power-on Defaults	

## 3.4 Auto Configuration with BIOS Defaults

The BIOS Default Auto Configuration feature uses the default system values before the user has changed any CMOS values. If the CMOS is corrupted, the BIOS defaults will automatically be loaded.

### ■ Figure 3.05 BIOS Default Auto Configuration Screen

AMIBIOS SETUP PROGRAM - BIOS SETUP UTILITIES (C) 1993 American Megatrends Inc., All Rights Reserved
STANDARD CMOS SETUP ADVANCED CMOS SETUP ADVANCED CHIPSET SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS
Load BIOS Setup Default Values from ROM Table (Y/N) ? N
Load BIOS Setup Default Values for Advanced CMOS and Advanced CHIPSET Setup
ESC: Exit, ↓ → ↑ ← :Sel, F2/F3:Color, F10:Save & Exit

If you wish to use the BIOS defaults, change the prompt to <Y> and press <ENTER>. The following message will appear on the screen:

**"Default values loaded. Press any key to continue."**

## 3.5 Auto Configuration with Power-On Defaults

This feature uses the default Power-On values. You may wish to use this option as a diagnostic aid if your system is behaving erratically.

### ■ Figure 3.06 Power-On Default Auto Configuration Screen

AMIBIOS SETUP PROGRAM - BIOS SETUP UTILITIES (C) 1993 American Megatrends Inc., All Rights Reserved
STANDARD CMOS SETUP ADVANCED CMOS SETUP ADVANCED CHIPSET SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS
Load Power-On Default Values from ROM Table (Y/N)?N
Load Power-On Default Values for Advanced CMOS and Advanced CHIPSET Setup
ESC : Exit, ↓ → ↑ ← :Sel, F2/F3 : Color, F10 : Save & Exit

If you wish to use the Power On defaults, change the prompt to <Y> and press <ENTER> . The following message will appear on the screen:

**"Default values loaded. Press any key to continue."**



## 3.6 Change Password

The BIOS SETUP program has a new optional password feature. Depending on the particular hardware manufacturer or system integrator, the system may be configured so that the user is required to enter a password every time the system boots, or whenever an attempt is made to enter the SETUP programs. The password function may also be disabled, which means that the prompt will not appear under any circumstances.

This section of the manual deals with changing the user password. The password check function is enabled in "Advanced CMOS Setup". The password check function is enabled by choosing either "Always" or "Setup".

The password, which will be stored in the CMOS, cannot exceed 6 characters in length. A default password, to be used if the CMOS is corrupted, is stored in the ROM. The default password is AMI. Check your system documentation in the event the default password has been changed by the manufacturer.

To change the user password, select the Change Password option from the main setup screen, by using the arrow keys to move the cursor to this selection and pressing <ENTER>. The screen in Figure 3.07 will appear.

### ■ Figure 3.07 Password Opening Screen

AMIBIOS SETUP PROGRAM - CHANGE PASSWORD (C) 1993 American Megatrends Inc., All Rights Reserved
Enter CURRENT Password: <input type="text"/>
Use Maximum 6 ASCII Characters, ESC:Exit

The first time you select this option, enter the default password AMI, or the default password specified in your system documentation, then press **<ENTER>** to complete your selection.

The screen will not display the characters entered. After the current password has been correctly entered, the screen in Figure 3.08 will appear, prompting you for the new password. If you want "Change Password" function is disabled, press **<ENTER>** then the screen of "Password Now Disabled" will appear.

### ■ Figure 3.08 New Password Screen

AMIBIOS SETUP PROGRAM - CHANGE PASSWORD (C) 1993 American Megatrends Inc., All Rights Reserved
<input type="text" value="Enter NEW Password:,"/>
Use Maximum 6 ASCII Characters, ESC:Exit

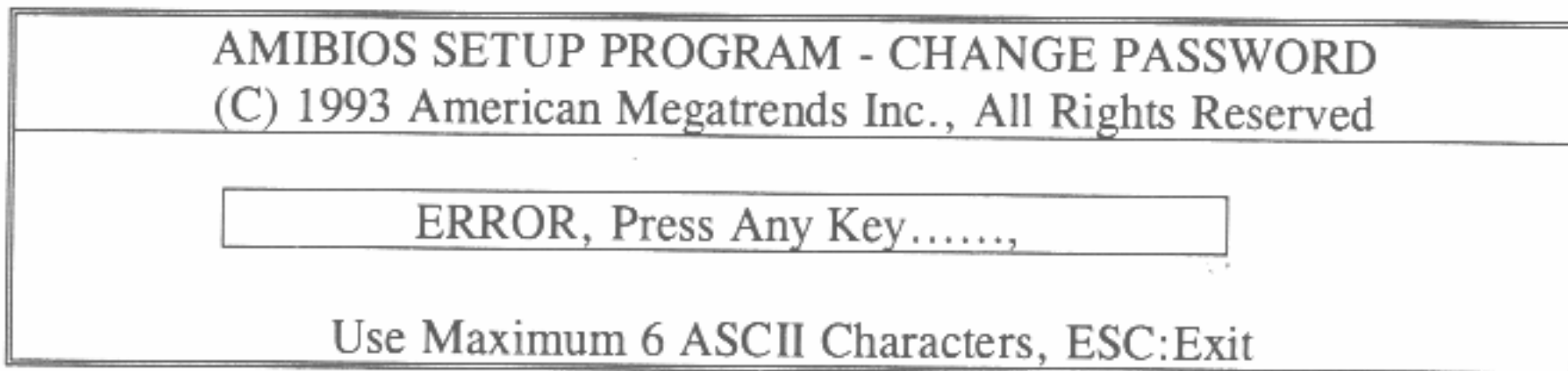
If the new password is entered, the prompt in Figure 3.09 will appear. Rekey the new password and press **<ENTER>**.

### ■ Figure 3.09 Password Confirmation Screen

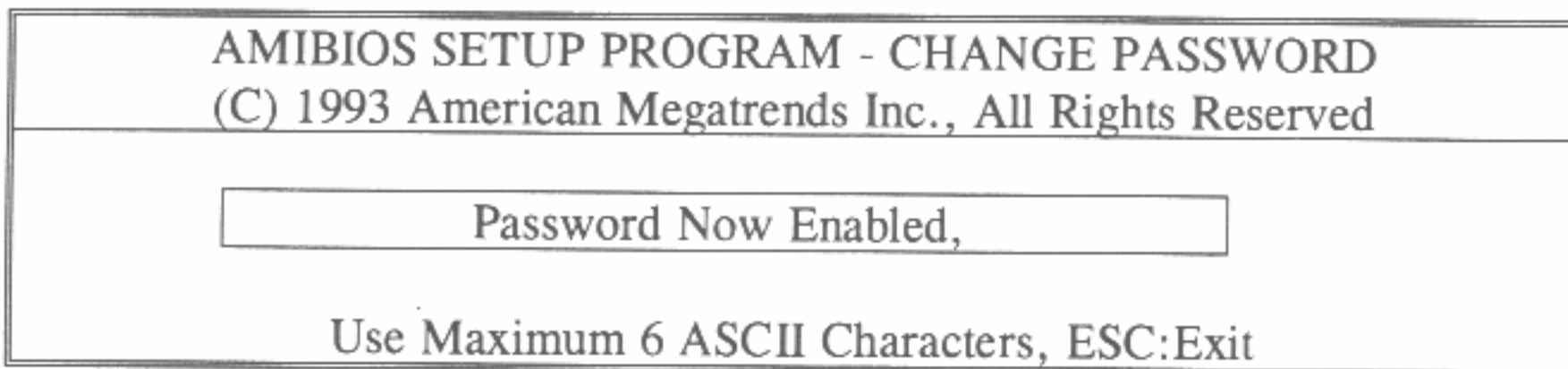
AMIBIOS SETUP PROGRAM - CHANGE PASSWORD (C) 1993 American Megatrends Inc., All Rights Reserved
<input type="text" value="Re-Enter NEW Password :,"/>
Use Maximum 6 ASCII Characters, ESC:Exit

If the password confirmation is miskeyed, the error screen in Figure 3.10 will appear. If the new password confirmation is entered without error, the screen in Figure 3.11 will appear. Press <ESC > to return to the main Setup menu.

■ **Figure 3.10 Password Error Screen**



■ **Figure 3.11 Password Installation Confirmation Screen**



Once Setup is completed and the changed values have been stored in the CMOS, when the system next boots, the user will be prompted for the password if the password function is present and has been enabled.

When and if the prompt appears is dependent upon the options chosen in Advanced CMOS Setup.

If the "Always" option was chosen in "Advanced CMOS Setup", the prompt will appear each time the system is powered on.

If the "Setup" option was chosen in "Advanced CMOS Setup", the prompt will not appear when the system is powered on, but will appear each time an attempt is made to enter the SETUP program.

If the "Disabled" option was chosen in "Change Password", the password prompt will never appear.

When the password prompt appears, the new password, which is now stored in the CMOS, should be entered and the <ENTER >key pressed. If the CMOS is corrupted, e.g., the batteries fall out or are loosened, the default ROM password mentioned above should be used instead.

**!! NOTE !!** *When the password is changed, however, it is important that a record of the change be kept in a safe place. In the event the password check has been enabled in Setup and the user forgets or loses the new password, the default password stored in the ROM cannot be used unless the CMOS is disabled. A relatively safe way to do this would be to disconnect the CMOS batteries, though for absolute assurance please first contact your retailer.*

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### **3.7 Auto Detect Hard Disk**

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Auto Detection of Hard Disk Type

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### **3.8 Hard Disk Utility**

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Format the Hard Disk, Auto Interleave Detection and Media Analysis.

## 3.9 Write to CMOS and Exit

The features selected and configured in the Standard Setup, Advanced CMOS Setup, Advanced Chipset Setup, and the New Password Setup will be stored in the CMOS when this option is taken. The CMOS checksum is calculated and written to the CMOS. Control is then passed back to BIOS.

### ■ Figure 3.12 Write to CMOS Exit Screen

AMIBIOS SETUP PROGRAM - BIOS SETUP UTILITIES (C) 1993 American Megatrends Inc., All Rights Reserved
STANDARD CMOS SETUP ADVANCED CMOS SETUP ADVANCED CHIPSET SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS
Write to CMOS and Exit (Y/N) ? N
Write the settings to the CMOS and Exit ESC : Exit, ↓ → ↑ ← : Sel, F2/F3: Color, F10: Save & Exit

Pressing <N> (No) and <ENTER> will return you to the Main Menu.

Pressing <Y> (Yes) and <ENTER> will save the system parameters and continue with the booting process.

### 3.10 Do not Write to CMOS and Exit

This option passes control back to BIOS without writing any changes to the CMOS.

#### ■ Figure 3.13 CMOS Exit Screen

AMIBIOS SETUP PROGRAM - BIOS SETUP UTILITIES (C) 1993 American Megatrends Inc., All Rights Reserved
STANDARD CMOS SETUP ADVANCED CMOS SETUP ADVANCED CHIPSET SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS
Want to Quit Without Saving (Y/N) ? N
Do not Write the settings to the CMOS and Exit ESC:Exit, ↓ → ↑ ← :Sel, F2/F3:Color, F10: Save & Exit

Pressing <N> (No) and <ENTER> will return the user to the main menu.

Pressing <Y> (Yes) and <ENTER> will continue with the booting process without saving any system parameters.



