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Note to Users

This User' s Guide & Technical Reference are for assisting system manufacturers and end users in setting up and installing the motherboard. Every effort has been made to ensure that the information in this manual is accurate. **Weal Union** Development Limited is not responsible for printing or clerical errors. Information in this document is subject to change without notice and does not represent a commitment on the part of Weal Union. For previous or updated manuals, BIOS, drivers, or product release information, please contact **Weal Union** Development Limited at http://www.tigatech.com or through any of the means indicated on the following pages.

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Chapter 1
Introduction

1.1 Feature of the Board

This motherboard is designed for Pentium III, Celeron & Cyrix III Processors by using VIA 693A Chipset.

1.2 Features Summary

This motherboard comes with following features:

- ★ Support Intel Pentium III FCPGA, Celeron PPGA or Cyrix III Processor on Socket 370
- ★ VIA Apollo Pro133 VT82C693A/VT82C686A Chipset
  - ★ Support 66/100/133MHz Processor Front-side Bus
- ★ Two DIMM slots Supporting up to 512MB Memory Capacity
- ★ Support 133MHz SDRAM DIMM
- ★ Support Virtual Channel Memory Technology
- ★ 1x AGP slot, 1x AMR slot, 3x PCI slots, 1x ISA slot
- ★ 4x USB ports, 1 x PS/2 mouse port, 1 x IrDA port
- ★ 1 x FDD port, 1 x LPT port, 2 x COM ports
- ★ Dual IDE Channels Supporting Four Ultra-DMA33/66 IDE Devices
- ★ Modem Ring Wakeup with External Modem
- ★ Interface Header to Support Wake-On-LAN Enabled Ethernet Card
- ★ Integrated AC97 Audio Onboard
  - ★ AC97 2.1 Compliant Codec with 3D Stereo Enhancement
  - ★ Hardware Integrated SoundBlaster Pro Compatibility
  - ★ 1 x Line-out, 1 x Line-in, 1 x Mic-in
  - ★ 1 x CD-in, 1 x AUX-in, 1 x Telephony Port, 1 x Game Port
- ★ System Health Monitoring with Win98/95/NT Support
- ★ Award 2Mbit BIOS, PC99/ACPI/DMI Compliant
- ★ Baby AT format, 220mm x 186mm PCB

Chapter 2
Installation

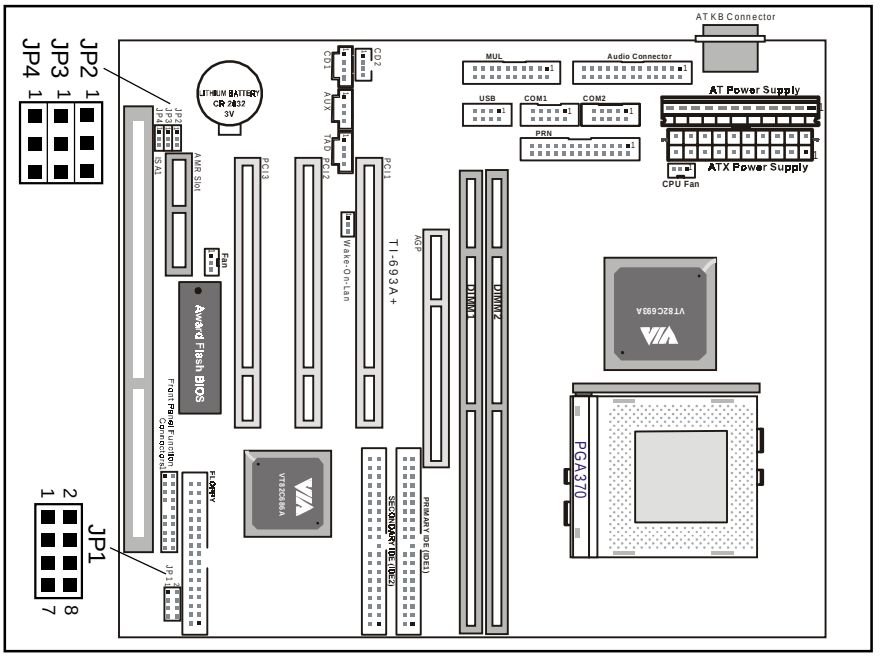
2.1 Installation Instructions

This section covers External Connectors and Memory Configuration. Please refer to the motherboard layout chart for external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The locations of the jumpers, connectors and ports are illustrated in the following figures. Before inserting these connectors, please pay attention to the directions.

NOTICE !!!

1. Make sure to unplug your power supply while adding or removing system components
2. Always work on an antistatic surface to avoid possible damage to the motherboard or other components from static discharge.

2.2 Motherboard Layout



2.3 Jumper Setting

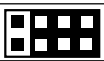
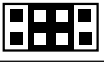
JP2, JP3 - Onboard AC97 Audio

JP2, JP3	AC97 Audio
JP2  (2-3) JP3  (1-2)	Enable
JP2  (1-2) JP3  (2-3)	Disable

JP4 - CMOS Clear

JP4	Function
 (1-2)	Normal
 (2-3)	CMOS Clear

JP1 - CPU Frequency Ratio selection

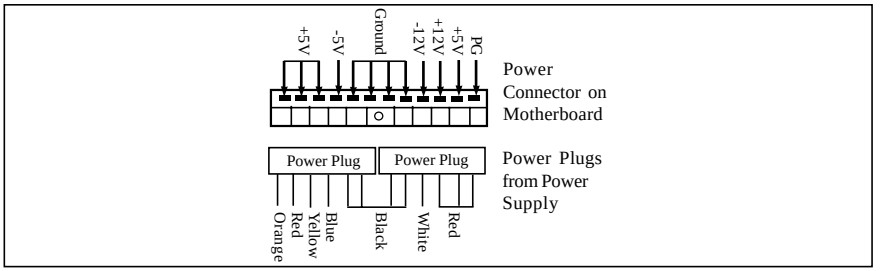
JP1	Ratio	CPU Speed		
		66MHz	100MHz	133MHz
	x 3			
	x 3.5			
	x 4			533MHz
	x 4.5	300MHz		600MHz
	x 5	333MHz	500MHz	667MHz
	x 5.5	366MHz	550MHz	733MHz
	x 6	400MHz	600MHz	800MHz
	x 6.5	433MHz	650MHz	866MHz
	x 7	466MHz	700MHz	933MHz
	x 7.5	500MHz	750MHz	1000MHz
	x 8	533MHz	800MHz	1066MHz

Remark:  Open  Close

2.4 Function & Installation Instructions

2.4.1 AT Power Supply Connector (12-Pin)

This connector connects to a standard 5V power supply. To connect the leads from the power supply, ensure first that the power supply is not power on. Most power supplies provide two plugs, and each plug contains six wires. Two of six wires are black and please orient the plugs to the connector so that 4 black wires are together.

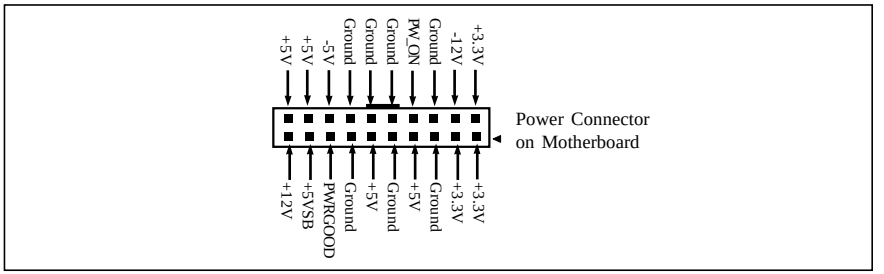


AT Power Connector

At a slight angle, align the plastic guide pins on the lead to their receptacles on the connector. Once aligned, press the lead onto the connector until the lead locks into place.

2.4.2 ATX Power Supply Connector (20-Pin)

This connector connects to an ATX power supply. The plug from ATX power supply will only insert in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the pins are aligned. The system power can be turned off through software control, like the shut down in Windows 2000 / ME / 98 / 95 start menu. Power management must be enabled in the system BIOS in order to activate this soft-off feature. Once the system BIOS receives the power management command from the OS, it will switch the system power off.



ATX Power Connector

2.4.3 AT Keyboard Connector

This connector supports a standard IBM-compatible keyboard, such as 101/102 enhanced keyboard (Use a PS/2 keyboard adapter in order to connect a PS/2 KB to this AT connector.).

2.4.4 Serial (COM1/COM2) Port Connector

This motherboard provides two compatible serial ports, it can be used when add additional serial devices.

2.4.5 Parallel Port Connector (26-pin)

This connector supports the included parallel port ribbon cable with mounting bracket.

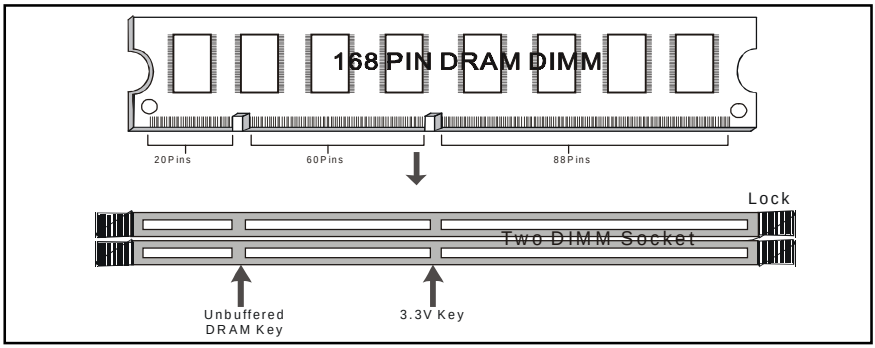
EXPANSION CARDS INSTALLATION

Before adding or removing any expansion cards or system components, confirm that you already unplugged your power supply. Otherwise, it may severely damage to your motherboard and expansion cards. Please follow the installation procedures as below:

1. Check carefully if those hardware or software settings for your expansion cards are in the proper position as shown in their User' s Manual.
2. Remove your computer case' s cover and unscrew the bracket plate for those slots needed to insert.
3. Those expansion cards must be aligned on the slots firmly with good connection.
4. Put on the computer case cover.
5. If needed, set up the BIOS configuration and install the required drivers for your expansion cards.

2.4.6 SDRAM Sockets

There are two SDRAM sockets on-board to provide more flexibility for your system memory upgrade. Because the number of pins are different on either side of the breaks, the DIMM module will only fit the 3.3V 168-pin unbuffered for this motherboard.



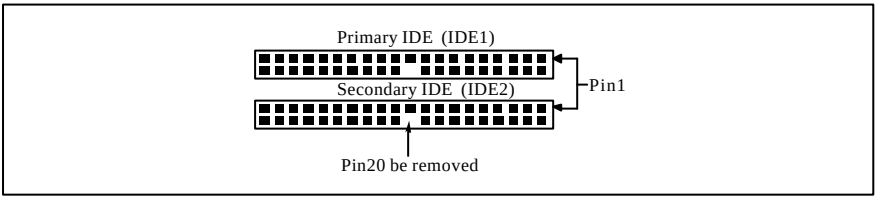
168-Pin SDRAM Module Installation Diagram

2.4.7 Floppy Drive Connector (34-Pin)

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the on-board " FLOPPY" connector, connect the remaining plugs on the other end to the floppy drives correspondingly.

2.4.8 IDE Connectors (40-Pin)

The IDE connectors support the provided IDE HDD ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your HDDs. If you install two IDE devices on the same cable, you must configure the second device to slave mode by setting its jumper accordingly. (Refer to your IDE device document for the jumper settings. Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged.)



IDE Connectors

2.4.9 BIOS

The motherboard flash BIOS provides users with more flexibility in upgrading their motherboards. The flash BIOS can be easily reprogrammed via software.

2.4.10 PCI Slots

This motherboard provides three full-length 32-bit PCI slots with up to 133MB/sec burst data transfer rate.

2.4.11 ISA Slot

This motherboard provides one 16-bit ISA slot.

2.3.12Accelerated Graphics Port (AGP Slot)

This motherboard provides an AGP Slot to support AGP graphics cards

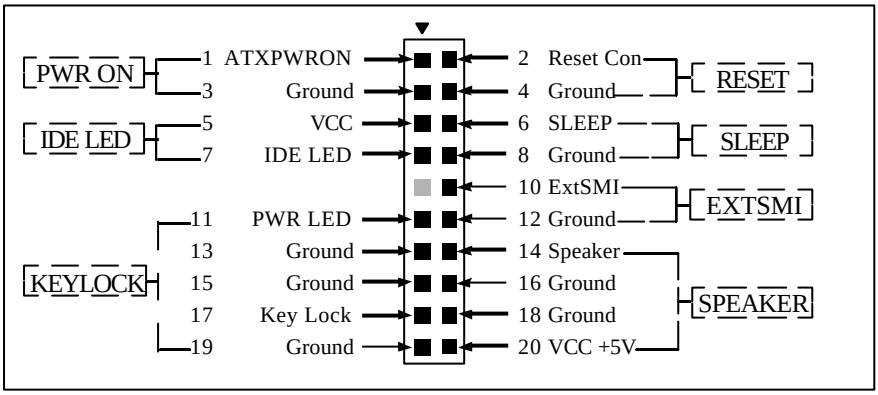
2.4.13 AMR Slot

This connector supports a specially designed audio and/or modem card called an AMR.

2.4.14 Front Panel Function Connector

The front panel integrates: 2-pin Power On, 2-pin IDE LED, 5-pin Keylock, 2-pin Reset Switch, 2-pin Sleep, 2-pin ExtSMI, 4-pin Speaker.

The connector pin out are described as the figure below:



2.4.15 Wake-On-LAN Interface

This connector connects to a LAN card with a Wake-On-LAN output. The connector powers up the system when a wakeup signal is received from the network.

2.4.16 PGA370 CPU Socket

The motherboard provides a ZIF Socket 370. The CPU that cames with the motherboard should have a fan attached to it to prevent overheating. If it is not so, purchase a fan before you turn on your system.

Notice!!! Be sure that there is a sufficient air circulation across the processor' s heatsink by regularly checking that your CPU fan is working. Without sufficient circulation, the processor could be overheated and it may damage both the processor and the motherboard. You may install an auxiliary fan, if necessary.

Installation step:

1. Turn off the power of your system and remove its cover;
2. Locate the ZIF socket and open it by first pulling the lever sideways away from the socket then upwards to a 90-degree angle;
3. Insert the CPU with correct orientation

   (The CPU has a corner pin for two of the four corners, that the CPU only fit in the orientation.)
4. Once completely inserted, pull down the socket' s lever to horizontal and make sure the CPU is firmly locked in the socket.

2.4.17 CPU Fan Connector

CPU Fan cable plug in the 3-pin CPU Fan connector onboard.

Pin1 Sense

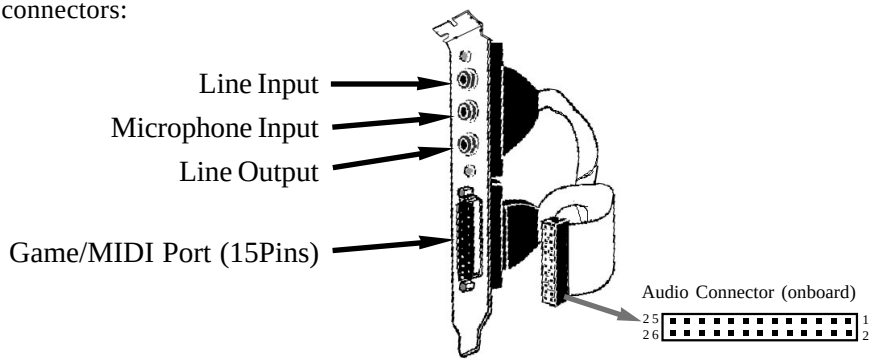
Pin2 +12V

Pin3 GND

2.4.18 Audio Connector (Available for TI-693A+S model only.)

This connector supports the optional connector set for audio input/output and game/MIDI port. The connector set connects to the 26-pin block and mounts to an open slot on your computer' s chassis.

Note: This connector is available only on motherboard with optional onboard audio support. The AT motherboard provides Audio header for Audio Cable and Audio connectors:



2.4.19 Internal Audio Connectors (4-pin CD, AUX, Modem)

These connectors allow you to receive stereo audio input from such sound sources as a CD-ROM, MPEG card. The Modem connector allows the onboard audio to interface with an voice modem card with a similar connector. It also allows the sharing of mono_in (such as a phone) and mono_out(such as a speaker) between the onboard audio and the voice modem card.

CD Input 1 ■■■■ (1,3: Ground; 2: Right Audio Channel; 4: Left Audio Channel)

CD Input 1 ■■■■ (1: Left Audio Channel; 2, 3: Ground; 4: Right Audio Channel)

Auxiliary Input 1 ■■■■ (1: Left Audio Channel; 2, 3: Ground; 4: Right Audio Channel)

Telephony Input 1 ■■■■ (1: Mono_in; 2,3: Ground; 4: Mono_out)

Chapter 3
Software Installation

Note:
Before installation, you must already have Windows 95/98/2000/ME or Windows NT4.0 install on your computer.

The installation procedure is as below:

1. Make sure that Auto-insert detection is enabled for your CDROM drive. It should be enabled by default.
2. Insert this CD disk into your CDROM drive.
3. The Explorer screen will then appear, that gives you instructions for installation.
4. There may require restarts of Windows during some software setup. In these cases, you can just eject then close the CD-tray in order to get back to the Explorer screen. You can then proceed with the next step.

You can get more information with open file: ***readme.txt*** in the CD disk.

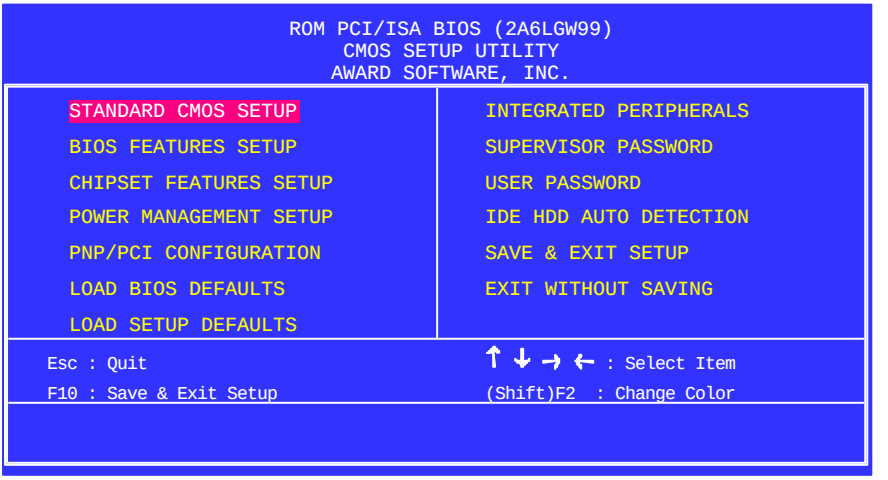
Chapter 4
Award BIOS Setup

This TI-693A+ motherboard comes with the AWARD BIOS from AWARD Software Inc. Enter the Award BIOS program Main Menu by:

1. Turn on or reboot the system. After a series of diagnostic checks, the following message will appear:

   Press <DEL> to enter setup, ESC to skip memory test

2. Press the <DEL> key and the main program screen will appear as follows.



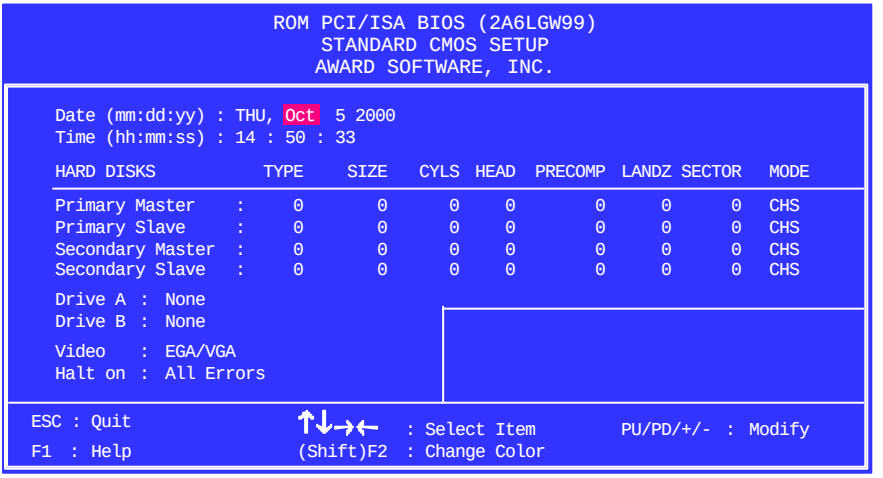
3. Using the arrows ↑↓→← on your keyboard, select an option, and press <Enter>. Modify the system parameters to reflect the options installed in your system. Otherwise you may return to the Main Menu anytime by pressing <ESC> .

Type of Setup	***Description***
Standard CMOS Setup	This setup page includes all the items in a standard, AT-compatible BIOS.
BIOS Features Setup	This setup page includes all the items of Award special enhanced features.
Super / User Password Setting	Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.
Chipset Features Setup	This setup page includes all the items of chipset special features.
Power Management Setup	This entry only appears if your system supports Power Management "Green PC", standards.
PNP / PCI Configuration Setup	This entry appears if your system supports PNP / PCI.
Load BIOS Defaults	The BIOS defaults have been set by the manufacturer and represent settings which provide the minimum requirements for your system to operate.
Load Setup Defaults	The chipset defaults are settings which provide for maximum system performance. While Award has designed the custom BIOS to maximize performance, the manufacturer has the right to change these defaults to meet their needs.
Integrated Peripherals	This section page includes all the items of IDE hard drive and Programmed Input / Output features.
IDE HDD Auto DETECTION	Automatically detect and configure hard disk parameters. The Award BIOS includes this ability in the event you are uncertain of your hard disk' **s** parameters.
Save & Exit Setup	Save CMOS value changes to CMOS and exit setup.
Exit Without Save	Abandon all CMOS value changes and exit setup.

4. In the Main Menu, "SAVE AND EXIT SETUP" saves your changes and reboots the system, and "EXIT WITHOUT SAVING" ignores your changes and exits the CMOS Setup.

4.1 Standard CMOS Setup

Select the Award BIOS Setup options by choosing Standard CMOS Setup from the AwardBIOS Setup main menu. The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes one or more than one setup items. Use the arrows to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.



Date

The date format is <week>, <month>, <day>, <year>.

Week	The week, from Sun to Sat, determined by the BIOS and is display-only
Month	The month, Jan. Through Dec.
Day	The day, from 1 to 31 (or the maximum allowed in the month)
Year	The year, from 1900 through 2099

Time

The times format in <hour> <minute> <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

IDE Primary Master, Slave / Secondary Master, Slave

The categories identify the types of 2 channels that have been installed in the computer. There are 45 predefined types and 4 user definable types are for Enhanced IDE BIOS. Type 1 to Type 45 are predefined. Type user is user-definable.

Press PgUp or PgDn to select a numbered hard disk type or type the number and press <Enter>. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category. If your hard disk drive type is not matched or listed, you can use Type "User" to define your own drive type manually.

If you select Type "User", you will need to know the information listed below. Enter the information directly from the keyboard and press <Enter>. This information should be included in the documentation from your hard disk vendor or the system manufacturer.

If the controller of HDD interface is ESDI, the selection shall be "Type 1".

If the controller of HDD interface is SCSI, the selection shall be "None".

If you select Type "Auto", BIOS will Auto-Detect the HDD & CD-ROM Drive at the POST stage and showing the IDE for HDD & CD-ROM Drive.

Type	*Drive Type*
CYLS.	Number of cylinders
HEADS	number of heads
PRECOMP	write precomp
LANDZONE	Landing zone
SECTORS	number of sectors
MODE	mode type

If a hard disk has not been installed select NONE and press <Enter>.

Drive A type / Drive B type

The category identifies the types of floppy disk drive A or drive B that have been installed in the computer.

Video

The category selects the type of adapter used for the primary system monitor. Although secondary monitors are supported, you do not have to select the type in setup.

Halt on

The category determines whether the computer will stop if an error is detected during power up.

Memory

The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

4.2 BIOS Features Setup

The Award BIOS Setup options described in this section are selected by choosing BIOS Features Setup from the Award BIOS Setup main menu.

4.3 Chipset Features Setup

Choose Chipset Features Setup on the Award BIOS Setup main menu. All the items of chipset special features you can setup.

4.4 Power Management Setup

The Award BIOS Setup options described in this section are selected by choosing Power Management Setup from the Award BIOS Setup main menu. This setup page includes all the items of Green function features.

4.5 PnP/PCI Configurations

Choose PnP/PCI Configurations from the Award BIOS Setup main menu. This setup page includes all the configurations of PCI & PnP ISA resources.

4.6 Integrated Peripherals

The Award BIOS Setup options described in this section are selected by choosing Integrated Peripherals from the Award BIOS Setup main menu. This setup page includes all onboard peripherals.

4.7 Save & Exit Setup

Choose Save & Exit Setup and Exit from the Award BIOS Setup main menu. Type "Y" to exit the BIOS Setup program and saving the values. Type "N"to return to the Setup program.

4.8 Exit Without Saving

Choose Exit Without Saving from the Award BIOS Setup main menu. Type "Y" to exit the BIOS Setup program without saving the values. Type "N" to return to the Setup program.

The End

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