Flexible Main Board
User’s Guide

KM-T5-T3, Version 1.x
January 1998

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CONTENTS

1 INTRODUCTION

1.1 Overview

This KM–T5–T3 mainboard is a full-featured IBM PC/AT™-compatible board that supports the PCI local bus and current and future models of the high-performance CPU, including;

- Intel Pentium P54C/P55C processors
- Cyrix 6x86/6x86MX processors
- AMD K5/K6 processors

The board's control logic provides high-speed performance for the most advanced multi-user, multitasking computer applications available today. The board employs 4 to 64MB Single Inline Memory Modules (SIMMs) or 8 to 128 MB SDRAM Memory Modules (DIMMs) for maximum memory up to 256MB.

This mainboard is fully compatible with thousands of applications developed for IBM PC/AT™-compatible personal computers. The Peripheral Component Interconnect (PCI) local bus is a high-performance 32-bit bus that lets you add highly integrated peripheral controller components, peripheral add-on boards, and processor/memory systems.

In addition, the Industry Standard Architecture (ISA) bus slots allow you to choose from 8- or 16-bit industry-standard add-on boards. A floppy disk drive controller, IDE hard disk drive controller, serial ports (16550 UART), and parallel port (with EPP and ECP modes) are included so that peripheral devices can be easily connected without using the expansion slots.

1.2 Features

This KM–T5–T3 mainboard offers the following advanced features:

CPU

- Supports 75 ~ 266 MHz Pentium CPUs
- Supports 2 sets of onboard regulators for dual power CPUs
- Supports Cyrix 6x86/6x86MX, AMD K5/K6, and Intel P54C/P55C CPUs

Memory

- Uses 4 x 72-pin SIMM modules and 2 DIMM modules up to 256MB
- Supports both Fast Page Mode and EDO/SDRAM RAM module
- Supports onboard pipeline burst SRAM 256KB or 512 KB

I/O Slots

- Three 16-bit ISA bus slots
- Four 32-bit Bus Master PCI local bus slots
- All PCI slots support Master mode

BIOS

- Licensed Award BIOS
- Supports Flash ROM, Plug & Play, and Green feature

Onboard Super I/O

- Supports 2 onboard PCI IDE interace

- Supports mode 1 to mode 4 hard disk driver
- Supports two 16550 compatible enhanced serial ports
- Supports floppy disk interface
- Supports EPP/ECP high performance parallel port function
- Supports 2 USB ports
- Supports DMA/33, ACPI (Advanced configuration Power Management Interface)
- Supports Ring On (external modem only)

PCB Size

- 22 x 22 cm

1.3 Unpacking the Mainboard

This mainboard comes in a sturdy cardboard shipping carton, which should contain the following items:

- The KM–T5–T3 Mainboard
- This User's Guide
- Utility Diskette
- Cable Set

Follow the precautions below while unpacking the mainboard and do remember to leave the mainboard in its original package until you are ready to install it.

1. Before handling the mainboard, ground yourself by touching an unpainted portion of the system's metal chassis.
2. Remove the mainboard from its anti-static packaging and place it on a grounded surface, component side up.

3. Check the mainboard for damage. If any chip appears loose, press carefully to seat it firmly in its socket.

4. Do not apply power if the mainboard appears damaged. In this case, contact your dealer immediately.

1.4 Electrostatic Discharge Precautions

Make sure you ground yourself before handling the mainboard or other system components. Electrostatic discharge can easily damage the components. Note that you must take special precautions when handling the mainboard in dry or air-conditioned environments.

Take these precautions to protect your equipment from electrostatic discharge:

- Do not remove the anti-static packaging until you are ready to install the mainboard and other system components.
- Ground yourself before removing any system component from its protective anti-static packaging. To ground yourself, touch the expansion slot covers or other unpainted portions of the computer chassis.
- Frequently ground yourself while working, or use a grounding strap.
- Handle the mainboard by the edges and avoid touching its components.

1.5 Main Board Layout with Default Settings

The following figure shows the default settings for this mainboard: 2.0x CPU speed, 66MHz system clock, Onboard PCI IDE Enabled, Flash ROM, 2.8V/3.3V dual voltage.

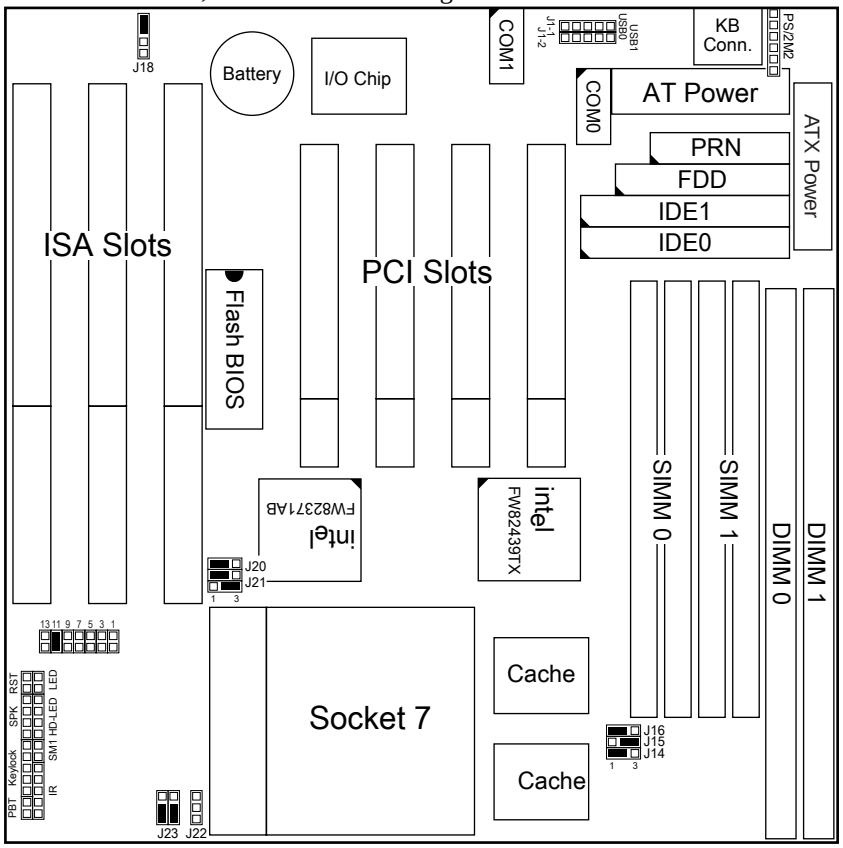


Figure 1–1. Mainboard Default Settings

2 HARDWARE SETUP

This part of the manual shows you how to do the hardware setup of this mainboard. Besides the proper procedures listed below, this section also discusses how to choose the CPU voltage, install the DRAM and SRAM memory, and set the jumper switch settings and connectors on the board.

Step 1: Installing a CPU into the ZIF Socket 7
Step 2: CPU Type Configuration
Step 3: Memory Installation
Step 4: Setting up the jumper switches
Step 5: Making connections through connectors

Go to Chapter 3 for BIOS setup after completing the above procedures.

2.1 Installing a CPU Into the ZIF Socket 7

If there is already a CPU in the ZIF socket, remove it by pulling the ZIF socket lever out to the side and then raising it. Then lift out the CPU.

Caution: *Static electricity can cause serious damage to integrated circuit chips. Avoid building up a static electricity charge in your body by touching a grounded object before you touch the chips, and at frequent intervals as you handle the chips.*

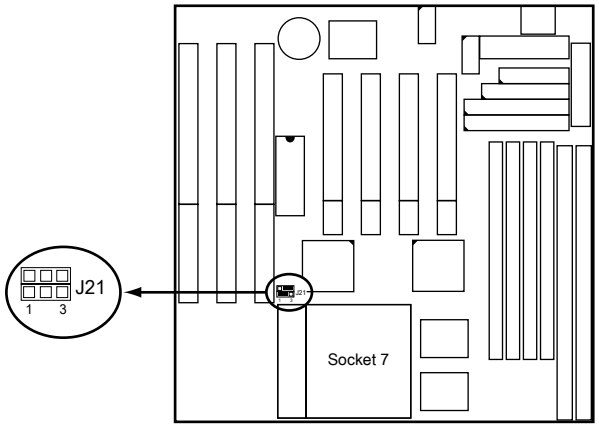
To install a CPU in the ZIF socket:

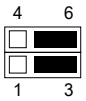
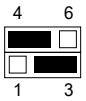
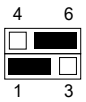
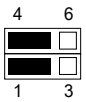
1. Turn off the system.
2. Find the ZIF socket. Refer to Figure 1–1, "The Main Board Layout," for the location of ZIF socket on the board.
3. Raise the ZIF socket lever by pulling it out to the side and then raising it.
4. Align the pin 1 corner of the CPU and the ZIF socket and place the CPU in the socket.
5. Press the ZIF socket lever down. The socket plate will slide forward. When the CPU is installed fully, the ZIF socket lever should snap into place.

2.2 CPU Type Configuration

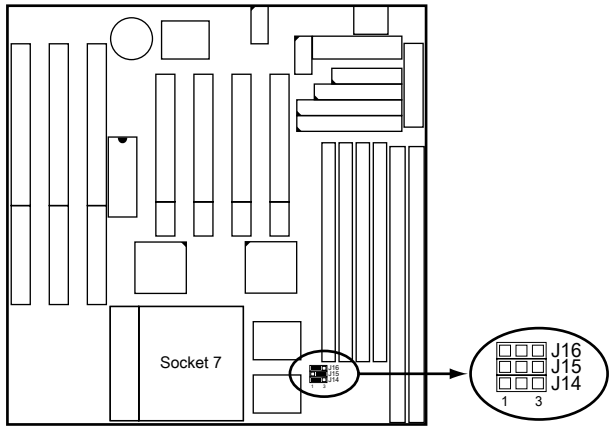
This section shows you how to configure your CPU, but be aware that you need to know your CPU voltage before configuration.

J21: CPU Clock Multiplier Jumper



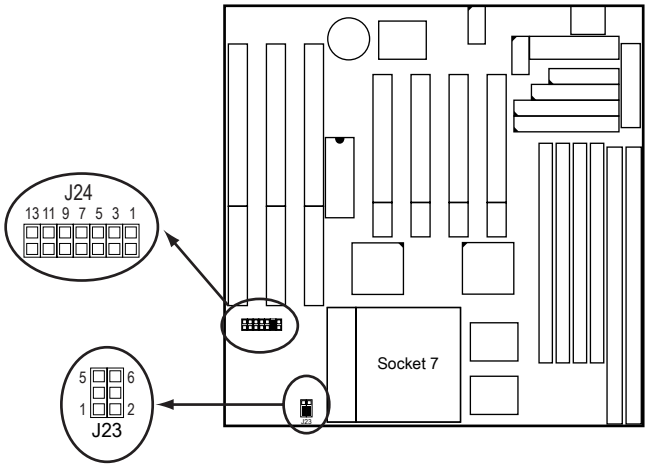
Clock Multiplier	J21	Clock Multiplier	J21
2.5X		2X (default)	
3X		1.5X 3.5X	

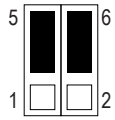
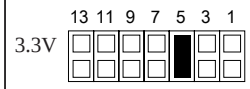
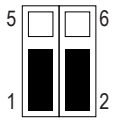
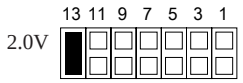
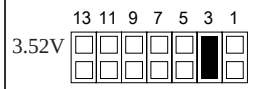
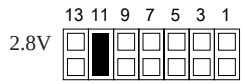
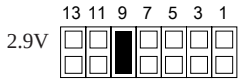
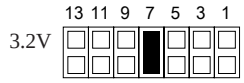
J14, J15, J16: CPU External Clock Speed Jumpers



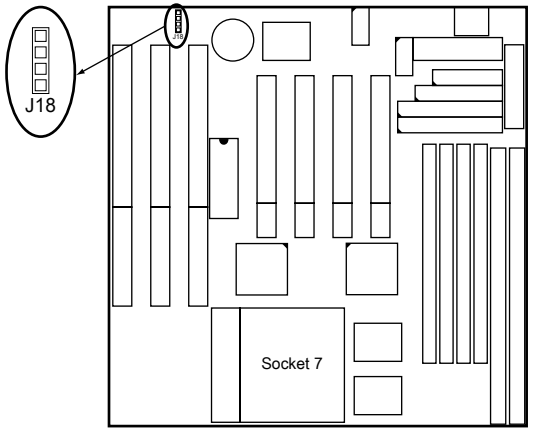
External Clock Speed	J14, J15, J16	External Clock Speed	J14, J15, J16
50MHz	J16 ■□ J15 ■□ J14 ■□ 1	66MHz	J16 ■□ J15 □■ J14 ■□ 1
55MHz	J16 □■ J15 ■□ J14 ■□ 1	75MHz	J16 □■ J15 ■□ J14 □■ 1
60MHz	J16 ■□ J15 ■□ J14 □■ 1	83.3MHz	J16 ■□ J15 □■ J14 □■ 1

J23 & J24: CPU Type Select



Single Voltage		Dual Voltage	
J23	**J24 CPU Vcore**	**J23**	**J24 CPU Vcore**
	 3.3V		 2.0V
	 3.52V		 2.8V
			 2.9V
			 3.2V

J18 – CMOS Discharge Select



CMOS Discharge	J18
Standard (default)	
Clear CMOS	

2.3 Memory Configuration

This KM–T5–T3 mainboard supports 72-pin SIMMs (Single Inline Memory modules) of 4MB/8MB/16MB/32MB/64MB to form a memory size between 8MB to 256MB. SIMM must be installed in pairs so that each bank contains two of the same size memory modules. And also, this mainboard supports 168-pin 3.3V unbuffered type DIMMs (Dual Inline Memory modules) of 8MB/16MB/32MB/ 64MB/128MB. The maximum memory between SIMMs and DIMMs is 256MB.

2.4 Jumper Settings

This section describes some of the connectors on the mainboard.

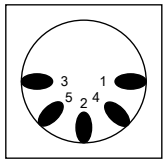
2.5 Connectors

This section describes some of the connectors on the mainboard. Refer to Figure 1–1 and 1–2 for the location of these connectors.

Note: Before making any connections to the board, make sure that the power to the system is turned off.

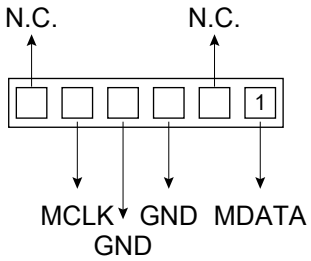
J3 – Keyboard Connector

A 5-pin female DIN keyboard connector is located at the upper right corner of the mainboard. Plug the keyboard jack directly into this connector.



J2 (PS2MS) – PS/2MS Mouse Connector (Optional)

Attach PS/2 mouse cable to this 6-pin connector adjacent to the keyboard connector.



J1/J5 – ATX/AT Power Supply Connector

This power supply connector has two sets of six-wire connectors. Plug the dual connectors onto the board and make sure that the black leads are in the center.

Plug the connector from the power directly onto the board connector while making sure the pin1 is in its position. The mainboard requires a power supply with at least 200 watts and a "power good" signal.

AT:

1	POWER GOOD	Orange
2	+5V	Red
3	+12V	Yellow
4	–12V	Blue
5	GROUND	Black
6	GROUND	Black

1	GROUND	Black
2	GROUND	Black
3	–5V	White
4	+5V	Red
5	+5V	Red
6	+5V	Red

Note: Before connecting the power supply, make sure it is not connected to the power source.

J12 (COM0)/J13 (COM1) – Serial Port Connectors

This mainboard provides two 2 x 5-pin serial port connectors, COM0 and COM1.

J6 (PRN) – Parallel (LPT) Port

This mainboard provides a 2 x 13-pin parallel port connector.

J1-1 (USB0)/J1-2 (USB1) – USB Connector

Attach the USB cable to provide connection to USB devices.

J7 (FDD) – Floppy Disk Drive Connector

This mainboard has a 2 x 17-pin floppy drive connector.

J9 (IDE0)/J8 (IDE1) – Primary/Secondary IDE Connectors

This mainboard has a 32-bit Enhanced PCI IDE Controller that provides two connectors, IDE0 (primary) and IDE1 (secondary).

J22 (FAN) – CPU DC Fan Connector

Attach a 3-pin CPU cooling fan cable to this connector.

J25 (1-5) – IR Connector

Attach a 4-pin infrared device cable to this connector for enabling the infrared transfer function. This mainboard meets the specification of ASKIAR and HPSIR.

J25 (6-7) – Standby Mode Switch Connector

J25 (8-11) – IDE Activity LED

This connector connects to the hard disk activity indicator light on the case.

J25 (12-13) – LED Connector

J25 (14-15) – Power Boot Switch (ATX Only)

J25 (16-20)– Keylock & Power LED Connector

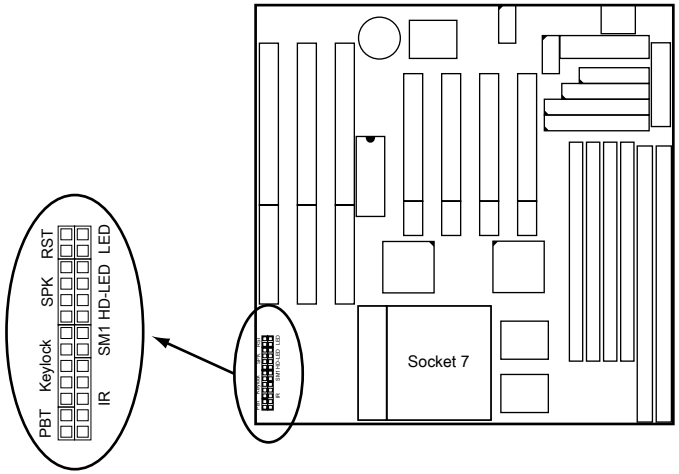
This 4-pin connector enables or disables the keyboard and the Power LED on the case.

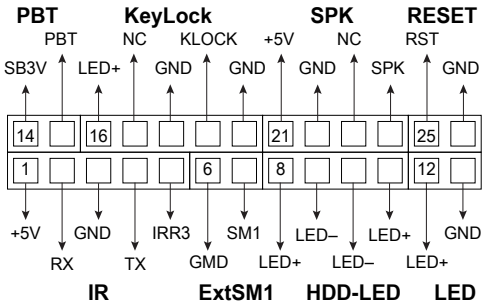
J25 (21-24) – External Speaker Connector

The speaker connector is a 4-pin connector for connecting the system and the speaker.

J25 (25-26) – Reset Connector

The system board has a 2-pin connector for rebooting the computer without having to turn off the power switch. Rebooting this way prolongs the life of the system power supply.





Jumpers and Connectors

The jumper switches and their functions of this mainboard are listed in the table below.

Jumper	Function	Page
J3	Keyboard Connector	11
J2 (PS2MS)	PS/2 Mouse Connector (Optional)	11
J1/J5	ATX/AT Power Supply Connector	12
J12 (COM0)	COM1 Port	12
J13 (COM1)	COM2 Port	12
J6 (PRN)	Printer (LPT) Port	12
J1-1 (USB0)	USB0 Connector	13
J1-2 (USB1)	USB1 Connector	13
J7 (FDD)	Floppy Disk Drive Connector	13
J9 (IDE0)	Primary IDE Connector	13
J8 (IDE1)	Secondary IDE Connector	13
J22 (FAN)	CPU DC Fan Connector	13
J25 (1-5)	IR Connector	13
J25 (6-7)	Standby Mode Switch Connector	13
J25 (8-11)	IDE Active LED	13
J25 (12-13)	LED Connector	13
J25 (14-15)	Power Boot Switch (ATX only)	13
J25 (16-20)	Keylock & Power LED Connector	14
J25 (21-24)	External Speaker Connector	14
J25 (25-26)	Reset Connector	14

3 AWARD BIOS SETUP

The ROM chips of your mainboard are configured with a customized Basic Input/Output System (BIOS) from Award Software Inc. The BIOS is a set of permanently recorded program routines that give the system its fundamental operational characteristics. It also tests the computer and determines how the computer reacts to specific instructions that are part of programs.

The BIOS is made up of codes and programs that provide the device level control for the major I/O devices in the system. It contains a set of routines (called POST, for Power-On Self Test) that check out the system when you turn it on. The BIOS also includes CMOS Setup programs, so no disk-based setup program is required. CMOS RAM stores information for:

- the date and time
- the memory capacity of the mainboard
- the type of display adapter installed
- the number and type of disk drives installed.

The CMOS memory is maintained by a battery installed on the mainboard. By using the battery, all memory in CMOS can be retained when the system power switch is turned off.

Use the CMOS Setup program to modify the system parameters to reflect the options installed in your system and to customize your system as desired. For example, you should run the Setup program after you:

- replace the battery
- install another disk drive
- receive an error code at startup
- use your system after not having used it for a long time

- find the original setup missing.

Run the CMOS Setup program after you turn on the system. On-screen instructions explain how to use the program.

3.1 Entering the CMOS Setup Program

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

   ```
   PRESS <DEL> TO ENTER SETUP
   ```

2. Press the <DEL> key and the main program screen appears as in figure 3–1.

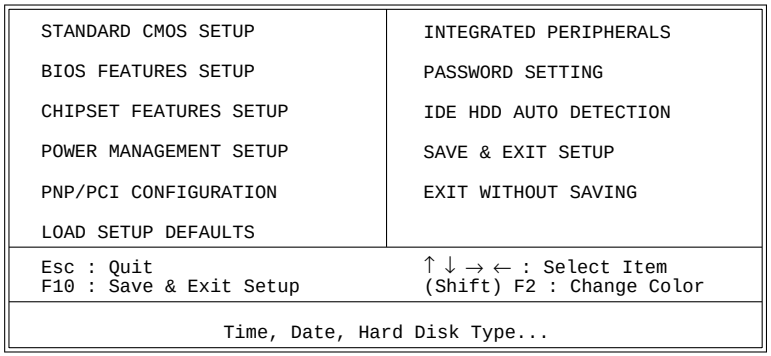


Figure 3–1. Main Program Screen

3. Use one of the arrows on the keyboard to select an option and press <Enter>. Modify the system parameters to reflect the options installed in the system.

4. Return to the Main Menu anytime by press <ESC>.

5. In the Main Menu, “SAVE AND EXIT SETUP” saves the changes and reboots the system, and “EXIT WITHOUT SAVING” ignores the changes and exits the program.

Standard CMOS Setup

Standard CMOS Setup records some basic system hardware configuration and sets the system clock and error handling. Use this option to change configuration values when changing the system hardware setup or when the data stored in the CMOS memory gets lost or damaged.

Run the Standard CMOS Setup as follows:

1. Choose "STANDARD CMOS SETUP" from the Main Menu and a screen depicted in Figure 3–2 appears.

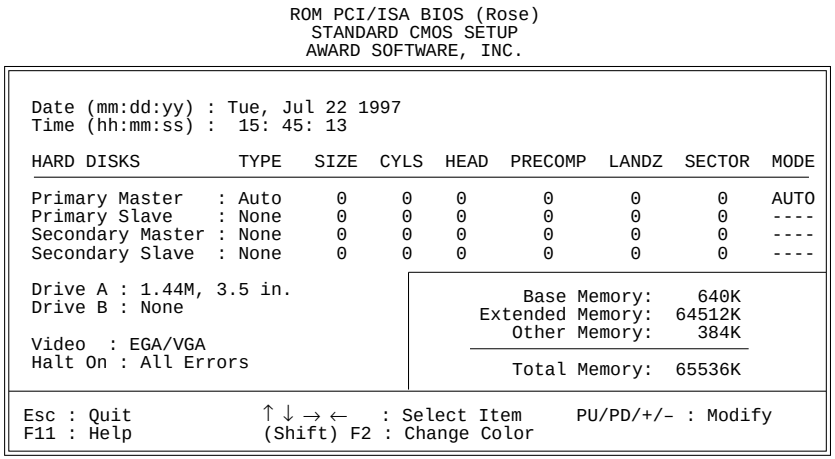


Figure 3–2. Standard CMOS Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/– keys.

A short description of screen options (Figure 3–2) follows:

Date (mm:dd:yy)	Set the current date.
Time (hh:mm:ss)	Set the current time.
Primary/Secondary Master/Slave	This field records the specifications for all non-SCSI hard disk drives installed in the system. Refer to the respective documentation on how to install the drivers.

Drive A/B	Set this field to the types of floppy disk drives installed in the systems. The choices are: 360KB, 5.25 in.; 72KB, 3.5 in.; 1.44MB, 3.5 in.; (default) 2.88MB, 3.5 in.; or None.
Video	Set this field to the type of video display card installed in the system. The choices are: Monochrome; CGA 40; VGA/EGA (default); or CGA 80.
Halt On	Set this field to the type of errors that will cause the system to halt. The choices are: All Errors (default); No Errors; All, But Keyboard; All, But Diskette; or All, But Disk/Key.

3. Press <ESC> to return to the Main Menu when you finish setting up in the "STANDARD CMOS SETUP".

BIOS Features Setup

BIOS Features Setup allows you to fine tune the system to improve performance or to record the system feature preferences.

Run the BIOS Features Setup as follows:

1. Choose "BIOS FEATURES SETUP" from the Main Menu, and a screen depicted in Figure 3–3 will appear.

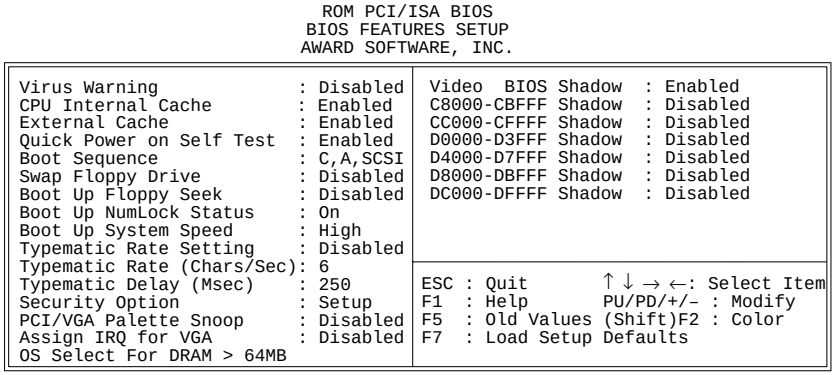


Figure 3–3. BIOS Features Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/– keys. An explanation of the <F> keys follows:

<F1>:	"Help" gives options available for each item.
Shift <F2>:	Changes color.
<F5>:	Resets the previous values. These values are the values with which the user started the current session.
<F6>:	Loads all options with the BIOS default values.
<F7>:	Loads all options with the Setup default values.

A short description of screen options (Figure 3–3) follows:

Virus Warning	Choose Enabled or Disabled (default).
CPU Internal Cache	Choose Enabled (default) or Disabled. This option allows the enabling or disabling of the CPU internal cache.
External Cache	Choose Enabled (default) or Disabled. This option allows the enabling or disabling of the external cache memory.
Quick Power On Self Test	Choose Enabled (default) or Disabled. This option speeds up the Power On Self Test routine.

Boot Sequence	Choose "C: A, SCSI" (default), or others. This option determines which drive to engage first for the operating system.
Swap Floppy Drive	Choose Enabled or Disabled (default). This option swaps floppy drive assignments when enabled.
Boot Up Floppy Seek	Choose Disabled (default) or Enabled.
Boot Up NumLock Status	Choose On (default) or Off. This option activates the NumLock function at boot-up time.
Boot Up System Speed	Choose High (default) or Low.
Typematic Rate Setting	Choose Enabled or Disabled (default). Enable this option to adjust the keystroke repeat rate.
Typematic Delay (Chars/Sec)	Range between 6 (default) and 30 characters per second. This option controls the speed of repeating keystrokes.
Typematic Delay (Msec)	Choose 250 (default), 500, 750, or 1000. This option sets the time interval for displaying the first and the second characters.
Security Option	Choose System or Setup (default). This option is used to prevent unauthorized system boot-up or use of BIOS Setup.
Assign IRQ for VGA	Choose Enabled or Disabled (default).
Video BIOS Shadow	Enabled (default): maps the VGA BIOS to system RAM for greater performance. Disabled: No mapping of the VGA BIOS to system RAM.
C8000–CBFFF to DC000–DFFF Shadow	These options are used to shadow other expansion cards' ROM.

3. Press <ESC> and follow the screen instructions to save or disregard the changes.

Chipset Features Setup

Chipset Features Setup changes the values of the chipset registers. These registers control the system options. Modification other than the default value should first have chipset knowledge.

Run the Chipset Features Setup as follows:

1. Choose “CHIPSET FEATURES SETUP” from the Main Menu and a screen depicted in Figure 3–4 appears.

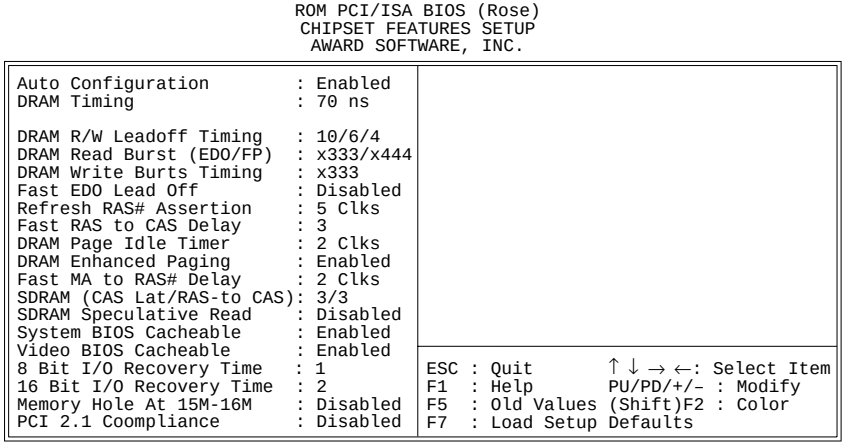


Figure 3–4. Chipset Features Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/– keys.

A short description of screen options (Figure 3–4) follows:

DRAM Timing	Default is 70ns.
System BIOS Cacheable	Default is Enabled.
Video BIOS Cacheable	Default is Enabled.
8 Bit I/O Recovery Time	Default is 1.
16 Bit I/O Recovery Time	Default is 2.

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Power Management Setup

Power Management Setup sets the system instructions power saving functions.

1. Choose “POWER MANAGEMENT SETUP” from the Main Menu and a screen depicted in Figure 3–5 will appear.

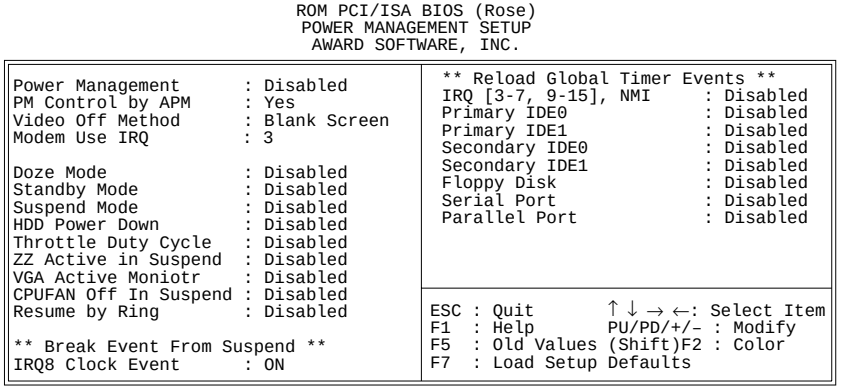


Figure 3–5. Power Management Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/– keys.

A short description of screen options (Figure 3–5) follows:

Power Management	Choose Max, Saving, User Define, Disabled (default), or Min. Saving.
PM Control by APM	Choose Yes (default) or No. Choose Yes if the operating system has APM functions, choose No otherwise.
Video Off Method	Choose Blank Screen (default), DPMS, or V/H Sync+Blank. You can choose either DPMS or V/H Sync+Blank when the monitor has the Green function. Choose Blank when the monitor has no Green function.
Doze Mode	This option sets the CPU speed down to 33 MHz to conserve power.

Standby Mode	Standby Mode turns off the VGA monitor, choose a mode for the different timers.
Suspend Mode	Suspend Mode turns off the CPU, thus saving the energy of the systems.
HDD Power Down	When the set time has elapsed, the BIOS sends a command to the HDD to power down.
Wake-Up Event	Set these IRQs individually. Activity detected from any enabled IRQ channel (ON) will wake up the system.

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

PnP/PCI Configuration Setup

PnP/PCI Configuration Setup configures the PCI bus slots. Run the PnP/PCI Configuration Setup as follows:

1. Choose "PNP/PCI CONFIGURATION SETUP" from the Main Menu and a screen depicted in Figure 3–6 will appear.

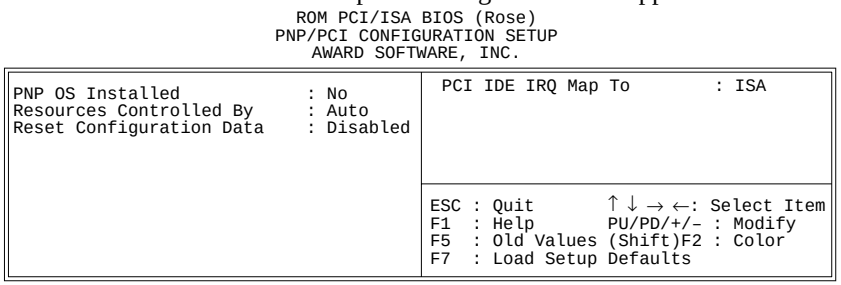


Figure 3–6. PnP/PCI Configuration Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/– keys.

A short description of screen options (Figure 3–6) follows:

Resources Controlled By	Choose Auto (default) or Manual.

Reset Configuration Data	Choose Enabled or Disabled (default).
PCI IRQ Actived By	Choose Level or Edge (default).
PCI IDE IRQ Map To	Choose ISA (default), PCI-Auto, PCI-SLOT1 through PCI-SLOT4.
Primary/Secondary IDE INT#	These options are available when selecting PCI-Auto or PCI-SLOT1~4 in "PCI IDE IRQ Map to". Choose INT#A through D.

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Load Setup Defaults

Load Setup Defaults option loads the default system values to the system configuration fields. If the CMOS is corrupted, the defaults are loaded automatically. Choose this option, and the following message will appear:

```
Load Setup Defaults (Y/N)? N
```

To use the Setup defaults, change the prompt to "Y" and press <Enter>.

Integrated Peripherals Setup

1. Choose "INTEGRATED PERIPHERALS SETUP" from the Main Menu, and a screen depicted in Figure 3–7 will appear.

```
                ROM PCI/ISA BIOS (Rose)
                INTEGRATED PERIPHERALS
                 AWARD SOFTWARE, INC.

IDE HDD Block Mode       : Enabled      Onboard Parallel Port    : 378/IRQ7
IDE Primary Master PIO   : Auto         Parallel port Mode       : SPP
IDE Primary Slave PIO    : Auto
IDE Secondary Master PIO : Auto
IDE Secondary Slave PIO  : Auto
IDE Primary Master UDMA  : Auto
IDE Primary Slave UDMA   : Auto
IDE Secondary Master UDMA: Auto
IDE Secondary Slave UDMA : Auto
On-Chip Primary PCI IDE  : Enabled
On-Chip Secondary PCI IDE: Enabled
PCI Slot IDE 2nd Channel : Enabled

Onboard FDD Controller   : Enabled
Onboard Serial Port 1    : 3F8/IRQ4
UR1 Mode                 : Normal

Onboard Serial Port 2    : 2F8/IRQ3     ESC : Quit       ↑ ↓ → ←: Select Item
UR2 Mode                 : Normal       F1  : Help       PU/PD/+/- : Modify
                                        F5  : Old Values (Shift)F2 : Color
                                        F7  : Load Setup Defaults
```

Figure 3–7. Power Management Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/– keys.

A short description of screen options (Figure 3–7) follows:

IDE HDD Block Mode	Choose Enabled (default) or Disabled. If the hard disk size is larger than 540MB, choose Enabled.
IDE Primary Master/Slave PIO; **IDE Secondary Master/Slave PIO**	Choose Auto (default) or Mode 0~4. The BIOS detects the HDD Mode type automatically when select Auto. Set to a lower mode other than Auto when the hard disk becomes unstable.
On-Chip Primary/Secondary PCI IDE	Enabled (default): Turns on the on-board IDE function. Disabled: Turns off the on-board IDE function.
PCI Slot IDE 2nd Channel	Enabled (default): Reserved IRQ15 for secondary IDE device. Disabled: Releases IRQ15 for other devices.
Onboard FDD Controller	Choose Enabled (default) or Disabled. Choose Disabled when you use an ISA card with FDD function, or, choose Enabled to use the onboard FDD connector.
Onboard Serial Port1	Choose COM1/3F8 (default), COM2/2F8, COM3/3E8, COM4/2E8, or Disabled. Do not set COM port 1 & 2 to the same value except Disabled.
Onboard Serial Port2	Choose COM1/3F8, COM2/2F8 (default), COM3/3E8, COM4/2E8, or Disabled.
Onboard Parallel Port	Choose the printer I/O address: 378H (default), 3BCH, 278H, Disabled.
Parallel Port Mode	Choose ECP/EPP, SPP (default), EPP, or ECP mode. The mode depends on the external device that connects to this port.

ECP Mode Use DMA	Choose 3 (for DMA3 as default) or 1 (for DMA1). Most sound cards use DMA1. Make sure the sound card configuration does not conflict with this function.

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Password Setting

This option allows the user to set the system password. To set the password:

1. Choose "Password Setting" in the Main Menu and press <Enter>. The following message appears:

   `"Enter Password:"`

2. When running this option for the first time, enter the password (up to 8 characters) and press <Enter>. For security, the screen will not display the entered characters.

3. After entering the password, the following message appears prompting for the confirmation of the password:

   `"Confirm Password:"`

4. Enter the same password again to confirm the password and press <Enter>.

5. Move the cursor to Save & Exit to save the password.

6. To delete the password entered before, choose the `"Password Setting"` and press <Enter>. This will delete the old password.

7. Move the cursor to Save & Exit to save the option, otherwise the old password will still be stored when you turn on the machine the next time.

8. Press <ESC> to exit to the Main Menu.

Note: *If you forget or lose the password, the only way to access the system is to clear the CMOS RAM by shorting J7 across pin2*

and 3. All setup information will be lost and you will need to run the BIOS setup program again.

IDE HDD Auto Detection

IDE HDD Auto Detection detects the parameters of an IDE hard disk drive and automatically enters them to the Standard CMOS Setup Screen.

After selecting this option, the screen prompts for a selection of a specific hard disk for Primary Master after you select this option. Enter "Y" to confirm the acceptance of the hard disk detected by the BIOS. Press <Enter> to check next hard disk. This function checks up to four hard disks. User can press the <ESC> after the <Enter> to skip this function to return to the Main Menu.

Save & Exit Setup

Save & Exit Setup saves all modifications specified into the CMOS memory. Highlight this option on the Main Menu and the following message will appear:

```
SAVE to CMOS and EXIT (Y/N)?  Y
```

Press <Enter> key to save the configuration changes.

Exit Without Saving

Exit Without Saving exits the Setup utility without saving the modifications specified. Highlight this option on the Main Menu and the following message will appear:

```
Quit Without Saving (Y/N)?  N
```

To quit without saving, change the prompt to "Y" and press <Enter> key to exit.

3.2 FLASH ROM Utility

This section shows you how to update your BIOS program.

Step 1: Make sure your operating environment is DOS (not windows DOS session) and remove every configured driver by renaming the config.sys and autoexec.bat, then reboot.

Step 2: Use the command in c prompt, such as:

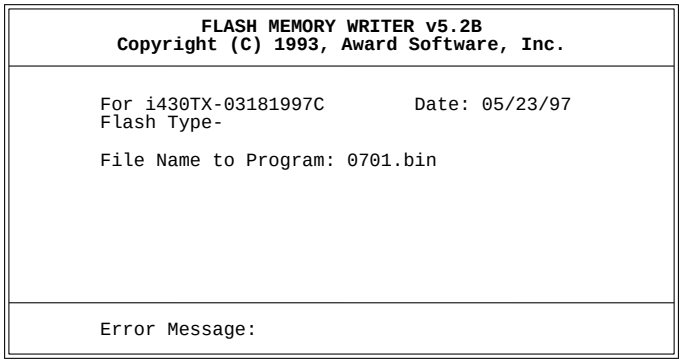
```
flash <path>0701.bin
```

or

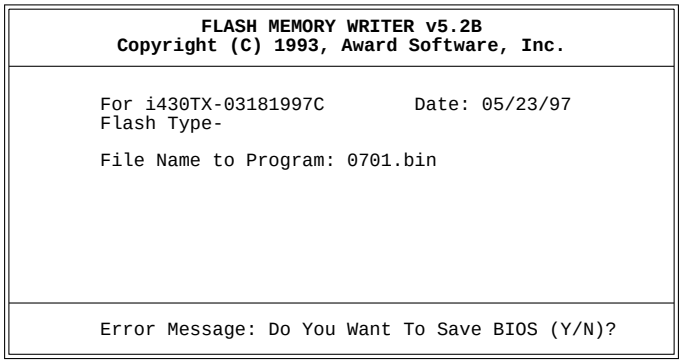
```
flash
```

then type file name later.

The following screen will appear:



Step 3: Select Y or N when the utility asks to save the older version of BIOS or not. Go to Step 4 if select Y, otherwise enter the file name to save, then go to Step 4.



Step 4: Make sure that you really need to update your system BIOS, then press Y to go on, otherwise stop it.