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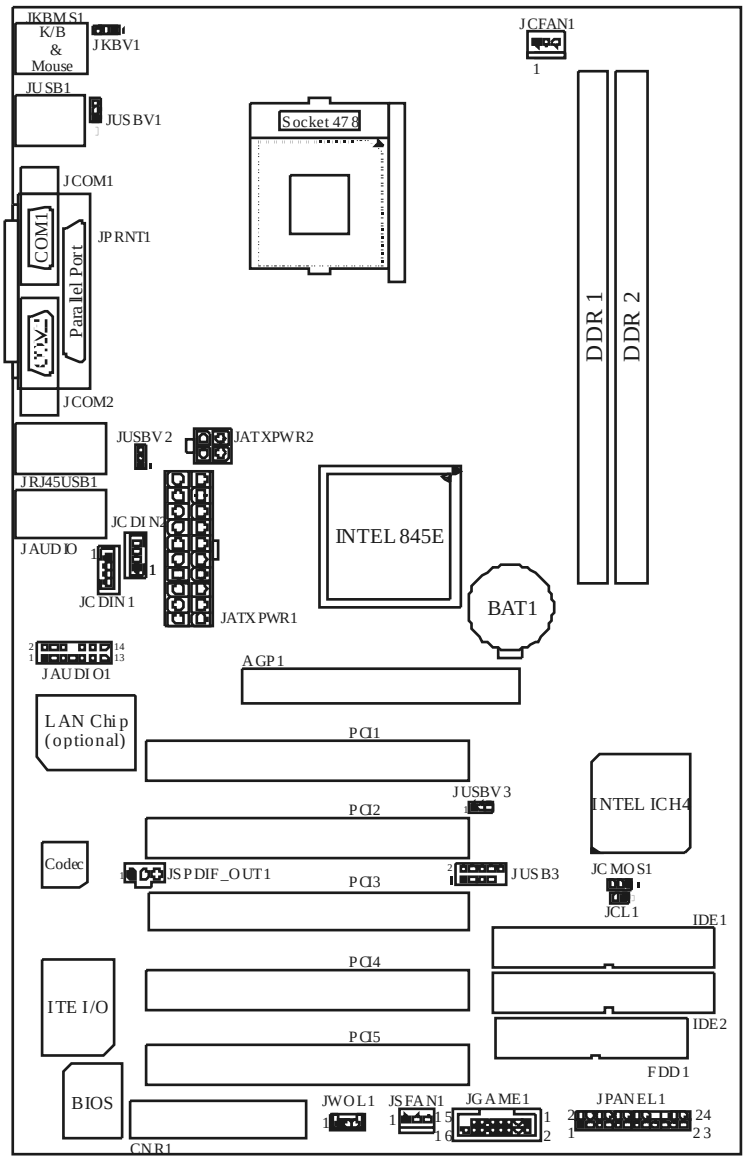
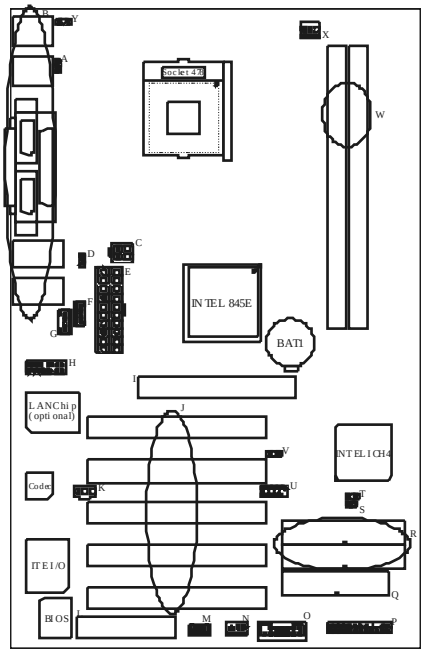
Content

Layout of P4TPE800



NOTE: ● represents the first pin.

Component Index



A. Power Source Selection for USB (JUSBV1)
B. Back Panel Connector
C. ATX Power Connector (JATXPWR2)
D. Power Source Selection for USB (JUSBV2)
E. ATX Power Connector (JATXPWR1)
F. CD-ROM Audio-In Header (JCDIN2)
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I. Accelerated Graphics Port Slot (AGP1)
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L. Communication Network Riser Slot (CNR1)
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O. Game Header (JGAME1)
P. Front Panel Connector (JPANEL1)
Q. FloppyDisk Connector (FDD1)
R. IDE Connectors (IDE1-2)
S. Case Open Connector (JCL1)
T. Clear CMOS Function (JCMOS1)
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W. DDR DIMM Modules (DDR1-2)
X. CPU Fan Connector (JCFAN1)
Y. Power Source Selection for Keyboard and Mouse (JKBV1)

English

P4TPE800 Features

A. Hardware

CPU
- Supports Socket 478.
- Supports Intel Pentium 4® processor up to 3.06GHz.
- Supports Hyper-Threading Technology.
- Front Side Bus 400/533/Fuzzy 800 MHz.

Chipset
- North Bridge: INTEL 845E.
- South Bridge: INTEL ICH4.

Main Memory
- Supports up to 2 DDR devices.
- Supports 200/266/Fuzzy 333 MHz DDR devices.
- Maximum memory size is 2GB.

Super I/O
- Chip: ITE IT8712.
- Low Pin Count Interface.
- Provides the most commonly used legacy Super I/O functionality.
- Environment Control initiatives
  - H/W Monitor
  - Fan Speed Controller
  - ITE's "Smart Guardian" function

Slots
- Five 32-bit PCI bus master slots.
- One CNR slot. (only Type A)
- One AGP 4X slot.

On Board IDE
- Supports four IDE disk drives.
- Supports PIO Mode 5, BMIDE Mode and Ultra DMA 33/66/100 Bus Master Mode.

LAN (optional)
- Chip: Realtek RTL8100B.
- Supports 10 Mb/s and 100 Mb/s auto-negotiation
- Half / Full duplex capability.

On Board AC'97 Sound Codec
- Chip: CMI9739A/ 9760.

- Compliant with AC'97 specification.
- AC97 2.2 interface.
- Supports 6 channels.

On Board Peripherals

a. Rear side

- 2 serial ports.
- 1 parallel port. (SPP/EPP/ECP mode)
- Audio ports in vertical position.
- 1 RJ-45 LAN jack. (optional)
- PS/2 mouse and PS/2 keyboard.
- 4 USB2.0 ports.

b. Front Side

- 1 floppy port supports 2 FDDs with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
- 2 USB2.0 ports.
- 1 front audio header.
- 1 S/PDIF header.

Dimensions

- ATX Form Factor: 18.5 X 30.5cm (W X L)

B. BIOS & Software

BIOS

- Award legal BIOS.
- Supports APM1.2.
- Supports ACPI.
- Supports USB Function.

Software

- Supports Warpspeeder™, 9th Touch™, FLASHER™ and StudioFun! ™ (optional).
- Offers the highest performance for Windows 98 SE, Windows 2000, Windows Me, Windows XP, SCO UNIX and LINUX etc.

Package contents

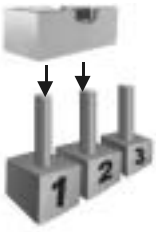
- HDD Round Cable X 1
- FDD Round Cable X 1
- User's Manual X 1
- Fully Setup Driver CD X 1
- StudioFun! Application CD X 1 (optional)
- USB 2.0 Cable X 1 (optional)
- S/PDIF Cable X 1 (optional)
- Rear I/O Panel for ATX Case X 1

How to set up Jumper

The illustration shows to how set up jumper. When the Jumper cap is placed on pins, the jumper is "close". IF no jumper cap is placed on the pins, the jumper is "open". The illustration shows a 3-pin jumper whose pin1and 2 are "close" when jumper cap is placed on these 2 pins.

Jumper open

Jumper close



Pin1-2 close

CPU Installation

Step1: Pull the lever sideways away from the socket and then raise the lever up to a 90-degree angle.

Step2: Look for the white dot/cut edge. The white dot/cut edge should point wards the lever pivot. The CPU will fit only in the correct orientation.

Step3: Hold the CPU down firmly, and then close the lever to complete the installation.

Step4: Put the CPU Fan on the CPU and buckle it. Connect the CPU fan power cable to the JCFAN1. This completes the installation.

Step1

Step2

Step3

Step4

CPU Fan Headers: JCFAN1

Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate Sense

System Fan Headers: JSFAN1

Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate Sense

DDR DIMM Modules: DDR1, DDR2

DRAM Access Time: 2.5V Unbuffered DDR 200/266/Fuzzy 333 Mhz Type required.

DRAM Type: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM Module (184 pin)

DIMM Socket Location	DDR Module	Total Memory Size (MB)
DDR 1	64MB/128MB/256MB/512MB/1GB *1	Max is 2GB
DDR 2	64MB/128MB/256MB/512MB/1GB *1	

Only for reference

Note: DDR does not support DDR200/266 when FSB is 800 MHz.

Installing DDR Module

1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.
2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated

Jumpers, Headers, Connectors & Slots

Floppy Disk Connector: FDD1

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.

Hard Disk Connectors: IDE1/ IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~5, Bus Master, and Ultra DMA 33/ 66/ 100/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).
The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

Peripheral Component Interconnect Slots: PCI 1-5

This motherboard is equipped with 5 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.

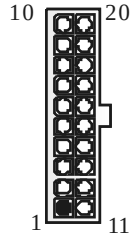
Accelerated Graphics Port Slot: AGP1

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

Communication Network Riser Slot: CNR1

The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports modem only.

Power Connectors: JATXPWR1/ JATXPWR2



JATXPWR1

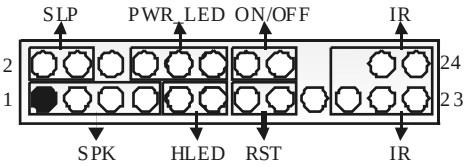
PIN	Assignment	PIN	Assignment
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PS_ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PW_OK	18	-5V
9	+5V_SB	19	+5V
10	+12V	20	+5V

JATXPWR2

PIN	Assignment	PIN	Assignment
1	+12V	3	Ground
2	+12V	4	Ground

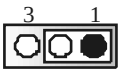
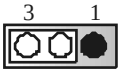
Front Panel Connector: JPANEL1

JPANEL1



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker	**2**	Sleep Control	Sleep
3	NA	Connector	**4**	Ground	Button
5	NA		**6**	NA	NA
7	Speaker		**8**	Power LED (+)	POWER
9	HDD LED (+)	Hard Drive	**10**	Power LED (+)	LED
11	HDD LED (-)	LED	**12**	Power LED (-)	
13	Ground	Reset	**14**	Power Button	Power-on
15	Reset Control	Button	**16**	Ground	Button
17	NA		**18**	KEY	
19	NA	IrDA	**20**	KEY	IrDA
21	+5V	Connector	**22**	Ground	Connector
23	IRTX		**24**	IRRX	

Power Source Selection for Keyboard/ Mouse: JKBV1

JKBV1	Assignment	Description
 Pin 1-2 close	+5V	+5V for keyboard and mouse
 Pin 2-3 close	+5V Standby Voltage	PS/2 Mouse and PS/2 Keyboard are powered with +5V standby voltage

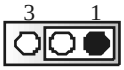
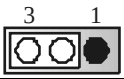
Note: In order to power-on keyboard and mouse function, "JKBV1" jumper cap should be placed on pin 2-3.

Power Source Selection for USB: JUSBV1/ JUSBV2/ JUSBV3

JUSBV1/JUSBV2/ JUSBV3	Assignment	Description
 Pin 1-2 close	+5V	JUSBV1: 5V for JUSB1 port JUSBV2: 5V for JRJ45USB1 port JUSBV3: 5V for JUSB3 port
 Pin 2-3 close	+5V Standby Voltage	JUSBV1: JUSB1 port powered with standby voltage of 5V JUSBV2: JRJ45USB1 port powered with standby voltage of 5V JUSBV3: JUSB3 port powered with standby voltage of 5V

Note: In order to power-on USB devices function, "JUSBV1/JUSBV2/ JUSBV3" jumper cap should be placed on pin 2-3 respectively.

Clear CMOS Jumper: JCMOS1

JCMOS1	Assignment
 Pin 1-2 Close	Normal Operation (default)
 Pin 2-3 Close	Clear CMOS Data

※ Clear CMOS Procedures:

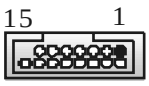
1. Remove AC power line.
2. Set the jumper to "Pin 2-3 Close".
3. Wait for five seconds.
4. Set the jumper to "Pin 1-2 Close".
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

Case Open Connector: JCL1

JCL1

Pin	Assignment
1	Case Open Signal
2	Ground

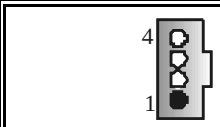
Game Header: JGAME1



JGAME1

Pin	Assignment	Pin	Assignment
1	+5V	2	+5V
3	GPSB1	4	GPSA1
5	GPX2	6	GPX1
7	MIDI-OUT	8	Ground
9	GPY2	10	Ground
11	GPSB2	12	GPY1
13	MIDI-IN	14	GPSA2
15	NA	16	+5V

CD-ROM Audio-In Header: JCDIN1/ JCDIN2



JCDIN1/2

Pin	Assignment
1	Left Channel Input
2	Ground
3	Ground
4	Right Channel Input

Front Panel Audio Header: JAUDIO1

JAUDIO1

Pin	Assignment	Pin	Assignment
1	Mic In/ Center	2	Ground
3	Mic Power/ Bass	4	Audio Power
5	Right Line Out/ Speaker Out Right	6	Right Line Out/ Speaker Out Right
7	Reserved	8	Key
9	Left Line Out/ Speaker Out Left	10	Left Line Out/ Speaker Out Left
11	Right Line In/ Rear Speaker Right	12	Right Line In/ Rear Speaker Right
13	Left Line In/ Rear Speaker Left	14	Left Line In/ Rear Speaker Left

Digital Audio Connector: JSPDIF1

JSPDIF1

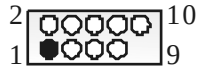
Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

Wake On LAN Header: JWOL1

JWOL1

Pin	Assignment
1	+5V_SB
2	Ground
3	Wake up

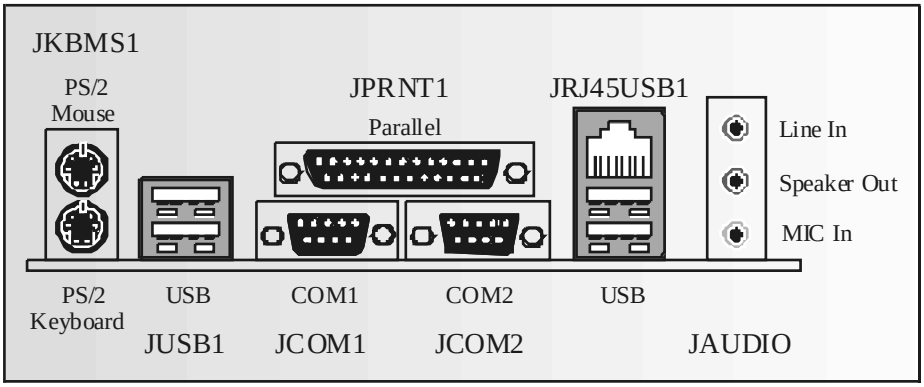
Front USB Header: JUSB3

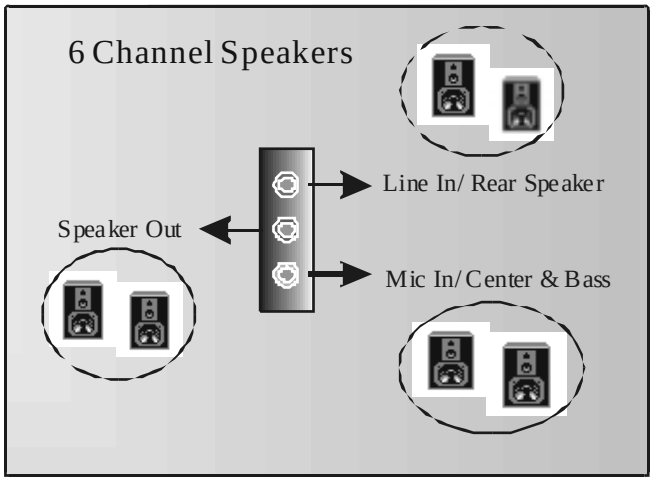


JUSB3

Pin	Assignment	Pin	Assignment
1	+5V(fused)	2	+5V(fused)
3	USB-	4	USB-
5	USB+	6	USB+
7	Ground	8	Ground
9	KEY	10	NC

Back Panel Connectors





Deutsch

Spezifikationen von P4TPE800

A. Hardware

CPU
- Unterstützung für Sockel 478.
- Unterstützung für den Intel Pentium® 4 Prozessor bis zu 3.06GHz.
- Unterstützung für Hyper-Threading-Technologie.
- FSB mit 400/533/Fuzzy 800 MHz.

Chipsatz
- Northbridge: INTEL 845E.
- Southbridge: INTEL ICH4.

Hauptspeicher
- Unterstützt auf maximal 2 DDR Geräte.
- Unterstützung für 200/266/Fuzzy 333 MHz DDR-Geräte.
- Die maximale Speichergröße ist 2GB.

Super I/O
- Chip: ITE IT8712.
- Low Pin Count Interface.
- Die meisten gemeinsamen vergebrauchten Super I/O Funktionen werden geliefert.
- Umweltkontroll-Initiative:
  - H/W Monitor
  - Vetilator-Geschwindigkeit-Controller
  - ITE's "Smart Guardian" Funktion

Slots
- Fünf 32-bit PCI-Bus-Slots.
- Ein CNR-Slot. (only Type A)
- Ein AGP 4X Slot.

Onboard-IDE
- Unterstützung für vier IDE Diskettenlaufwerke.
- Unterstützung für PIO Modus 5, Bride Modus und Ultra DMA 33/66/100 Bus Master Modus.

LAN (optional)
- Chip: Realtek RTL8100B.
- Unterstützung für 10 Mb/s und 100 Mb/s Auto-Negotiation.
- Halb/Voll-Duplex Fähigkeit..

Onboard AC'97 Sound Codec

- Chip: CMI9739A/ 9760.
- Entspricht der Spezifikation von AC'97.
- AC97 2.2 interface.
- Unterstützung für 6-Kanal.

Onboard-Peripheriegeräte

a. Rückwand

- 2 serielle Schnittstellen.
- 1 parallele Schnittstelle. SPP/EPP/ECP-Modus)
- Audio-Ports auf vertikale Position
- 1 RJ-45 LAN-Buchse. (optional)
- PS/2-Maus und PS/2-Tastatur.
- 4 USB2.0-Ports.

b. Vorderseite

- 1 Floppy-Port mit Unterstützung für 2 Diskettenlaufwerke.(360KB, 720KB, 1.2MB, 1.44MB und 2.88MB).
- 2 USB2.0-Ports.
- 1 Front-Audio-Header.
- 1 S/PDIF-Header.

Abmessungen

- ATX Form-Factor: 18.5 X 30.5cm (W X L)

B. BIOS & Software

BIOS

- Award legal BIOS.
- Unterstützung für APM1.2.
- Unterstützung ACPI.
- Unterstützung USB Funkion.

Software

- Unterstützung für Warpspeeder™, 9th Touch™, FLASHER™ und StudioFun! ™ (optional).
- Unterstützung für die am meisten verbreiteten Betriebsysteme wie Windows 98SE., Windows 2000, Windows ME, Windows XP and SCO UNIX usw.

Verpackungsinhalt

- Rundes Kabel für HDD X 1
- Rundes Kabel für FDD X 1
- Benutzer Handbuch X 1
- Treiber CD für Installation X 1
- StudioFun! Anwendung CD X 1 (optional)
- USB 2.0 Kable X 1 (optional)

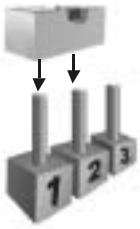
- S/PDIF Kable X 1 (optional)
- I/O-Rückwand für ATX-Gehäuse X 1

Einstellung der Jumper

Die Abbildung verdeutlicht, wie Jumper eingestellt werden. Pins werden durch die Jumper-Kappe verdeckt, ist der Jumper "***geschlossen***". Keine Pins werden durch die Jumper-Kappe verdeckt, ist der Jumper "***geöffnet***". Die Abbiildung zeigt einen 3-Pin Jumper dessen Pin1 und Pin2 "***geschlossen***" sind, bzw. es befindet sich eine Jumper-Kappe auf diesen beiden Pins.

Jumper geschlossen

Jumper geöffnet



Pin1-2 geschlossen

Installation der CPU

Schritt 1: Ziehen Sie den Hebel seitlich vom Sockel weg. Heben Sie den Hebel dann in 90-Grad-Winkel nach oben.

Schritt 2: Suchen Sie nach der scharfen Kante, die auf Drehpunkt des Hebels weisen muss. Die CPU passt nur, wenn sie richtig ausgerichtet ist.

Schritt 3: Drücken Sie die CPU fest in den Sockel und schließen Sie den Hebel.

Schritt 4: Stecken Sie Ihren CPU-Lüfter auf die CPU. Schließen Sie die Stromversorgungsstecker für CPU-Lüfter an JCFAN1 an. Dann beenden Sie die Installation.

Schritt 1

Schritt 2

Schritt 3

Schritt 4

CPU-Lüfter Headers: JCFAN1

Pin	Beschreibung
1	Masse
2	+12V
3	Lüfter RPM Geschwindigkeit Sensor

System-Lüfter Headers: JSFAN1

Pin	Beschreibung
1	Masse
2	+12V
3	Lüfter RPM Geschwindigkeit Sensor

DDR-DIMM-Modules: DDR1, DDR2

DRAM-Zugriffszeit: 2.5V unbuffered DDR 200/266/Fuzzy333 Mhz
Typ erforderlich.

DRAM-Typ: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM-Module (184-Pin)

DIMM-Sockel Standort	DDR-Module	Speichergröße (MB)
DDR 1	64MB/128MB/256MB/512MB/1GB *1	Maximal ist 2GB
DDR 2	64MB/128MB/256MB/512MB/1GB *1	

Nur als Referenz

DDR unterstützt nicht 200/266 MHz wenn FSB 800 ist.

Installation von DDR-Modul

1. Öffnen Sie einen DIMM-Slots, indem Sie die seitlich Chips nach außen drücken. Richten Sie das DIMM-Modul so über dem Slot aus, dass das Modul mit der Kerbe in den Slot passt.
2. Drücken Sie das DIMM-Modul in den Slot, bis die seitlichen Clips zuschnappen und das Modul fest sitzt.

Jumpers, Headers, Anschlüsse & Slots

Diskettenanschluss: FDD1

Das Motherboard enthält einen standardmäßigen Diskettenanschluss, der 360K-, 720K-, 1.2M-, 1.44M- und 2.88M-Disketten unterstützt. Dieser Anschluss unterstützt die mitgelieferte Bandkabel des Diskettenlaufwerks.

Festplattenanschlüsse: IDE1 und IDE2

Das Mainboard hat einen 32-bit Enhanced PCI IDE-Controller, der die Modi PIO0~4, Bus Master sowie die Ultra DMA/33/66/100/133- Funktion zur Verfügung stellt. Dieser ist mit zweii HDD-Anschlüssen versehen IDE1 (primär) und IDE2 (sekundär).

Die IDE-Anschlüsse können eine Master- und eine Slave-Festplatte verbinden, so dass bis zu 4 Festplatten angeschlossen werden können. Die erste Festplatte sollte immer an IDE1 angeschlossen werden.

Peripheral Component Interconnect Slots: PCI 1-5

Dieses Motherboard ist mit 5 standardmäßigen PCI-Slots ausgestattet. PCI steht für Peripheral Component Interconnect und bezieht sich auf einem Busstandard für Erweiterungskarten, der den älteren ISA-Busstandard in den meisten Schnittstellen ersetzt hat. Dieser PCI-Slot ist für 32 bits vorgesehen.

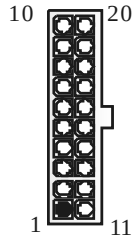
Accelerated Graphics Port Slot: AGP1

Ihr Monitor wird direkt an die Grafikkarte angeschlossen. Dieses Motherboard unterstützt Grafikkarten für PCI-Slots, aber es ist auch mit einem Accelerated Graphics Port ausgestattet. AGP-Karten verwenden die AGP-Technologie, um die Wirksamkeit und Leistung von Videosignalen zu verbessern, besonders wenn es sich um 3D-Grafiken handelt.

Communication Network Riser Slot: CNR1

Die CNR-Angaben entsprechen einer offenen Industry Standard Architecture, und sie definieren eine Hardware-skalierbare Riser-Card-Schnittstelle, welche nur Audio, Netzwerk und Modem unterstützt.

Stromversorgungsanschluss: JATXPWR1/JATXPWR2



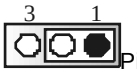
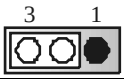
JATXPWR1

PIN	Belegung	PIN	Belegung
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Masse	13	Masse
4	+5V	14	PS_ON
5	Masse	15	Masse
6	+5V	16	Masse
7	Masse	17	Masse
8	PW_OK	18	-5V
9	+5V_SB	19	+5V
10	+12V	20	+5V

JATXPWR2

PIN	Belegung	PIN	Belegung
1	+12V	3	Masse
2	+12V	4	Masse

Jumper zum Löschen des CMOS: JCMOS1

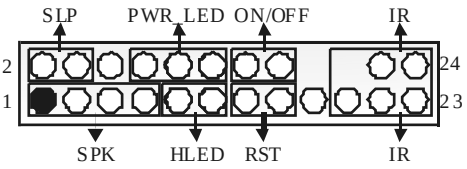
JCMOS1	Beschreibung
 Pin 1-2 geschlossen	Normale Operation (Default)
 Pin 2-3 geschlossen	CMOS-Daten Löschen

※ Prozeduren zum Löschen des CMOS:

1. Ausschalten Sie das System.
2. Lassen Sie Pin 2-3 von JCOMS1 geshclossen sein.
3. Bitte warten Sie 15 Sekunden.
4. Lassen Sie Pin 1-2 von JCOMS1 geshclossen sein.
5. Einschalten Sie das System wieder.
6. Zurücksetzen Sie ihr gewunschtes Kennwort oder löschen Sie die CMOS-Daten.

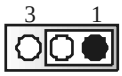
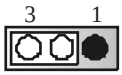
Anschlüsse für die Vorderseite: JPANEL1

JPANEL1



Pin	Belegung	Funktion	Pin	Belegung	Funktion
1	+5V	Lautsprecher-Anschluss	2	Schlaf - Kontroll	Schlaf - Knopf
3	Kein		4	Masse	
5	Kein		6	NA	NA
7	Lautsprecher		8	Power LED (+)	POWER LED
9	HDD LED (+)	Festplatte LED	10	Power LED (+)	
11	HDD LED (-)		12	Power LED (-)	
13	Masse	Rückstell-knopf	14	Power-Knopf	Power-On Knopf
15	Reset-Kontroll		16	Masse	
17	Kein		18	Schlüsse	
19	Kein	IrDA-Anschluss	20	Schlüsse	IrDA Anschluss
21	+5V		22	Masse	
23	IRTX		24	IRRX	

Auswahl von Stromsmodi für Tastatur/ Maus: JKBV1

JKBV1	Pin-Belegung	Beschreibung
 Pin 1-2 geschlossen	+5V	+5V für Tastatur und Maus
 Pin 2-3 geschlossen	+5V reservierte Spannung	Durch +5V reservierte Spannung für PS/2-Maus und PS/2-Tastatur zum Erwecken vom System

Anmerkung: Um die Funktion —"Erwecken durch Tastatur/Maus" — zu aktivieren, müssen Pins 2-3 von JKBV1 durch die Jumperkappe verdeckt werden.

Auswahl von Stromsmodi für USB: JUSBV1/ JUSBV2/JUSBV3

JUSBV1/JUSBV2	Pin-Belegung	Beschreibung
 Pin 1-2 geschlossen	+5V	JUSBV1: 5V für JUSB1 Port JUSBV2: 5V für JRJ45USB1 Port JUSBV3: 5V für JUSB3 port
 Pin 2-3 geschlossen	+5V reservierte Spannung	JUSBV1: 5V reservierte Spannung für JUSB1 zum Erwecken JUSBV2: 5V reservierte Spannung für JRJ45USB1 zum Erwecken JUSBV3: 5V reservierte Spannung für JUSB3 zum Erwecken

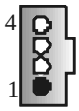
Anmerkung: Um die Funktion —"Erwecken durch USB-Geräte"— zu aktivieren, müssen Pins 2-3 von JUSBV1/JUSBV2 durch die Jumperkappe verdeckt werden.

Warnmeldung für Chassis-Öffnen Anschluss: JCL1

JCL1

Pin	Belegung
1	Warnmeldung für Chassis-Öffnen
2	Masse

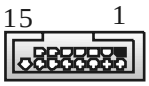
CD-ROM Audio-In Header: JCDIN1/ JCDIN2



JCDIN1/2

Pin	Belegung
1	Eingabe von linken Kanal
2	Masse
3	Masse
4	Eingabe von rechten Kanal

Game Header: JGAME1



JGAME1

Pin	Belegung	Pin	Belegung
1	+5V	2	+5V
3	GPSB1	4	GPSA1
5	GPX2	6	GPX1
7	MIDI-OUT	8	Masse
9	GPY2	10	Masse
11	GPSB2	12	GPY1
13	MIDI-IN	14	GPSA2
15	Kein Pin	16	+5V

Front Panel Audio Header: JAUDIO1

JAUDIO1

Pin	Belegung	Pin	Belegung
1	Mikrofon-Eingang/ Zentrum	2	Masse
3	Mikrofon-Betriebsspannung /Bass	4	Audio-Betriebsspannung
5	Audio-Signal des rechten Kanals zur Vorderseite / Lautsprecher-Signal des rechten Kanals zur Vorderseite	6	Audio-Signal des rechten Kanals zur Vorderseite / Lautsprecher-Signal des rechten Kanals zur Vorderseite
7	Reserv ieret für spät. Verwendung durch Kopfhörer-Verstärker	8	Schlüsse
9	Audio-Signal des linken Kanals zur Vorderseite / Lautsprecher-Signal des linken Kanals zur Vorderseite	10	Audio-Signal des linken Kanals zur Vorderseite / Lautsprecher-Signal des linken Kanals zur Vorderseite

11	Audio-Signal des rechten Kanals von der Vorderseite / Lautsprecher-Signal des rechten Kanals von der Vorderseite	**12**	Audio-Signal des rechten Kanals von der Vorderseite/ Lautsprecher-Signal des rechten Kanals von der Vorderseite
13	Audio-Signal des linken Kanals von der Vorderseite/ Lautsprecher-Signal des linken Kanals von der Vorderseite	**14**	Audio-Signal des linken Kanals von der Vorderseite/ Lautsprecher-Signal des linken Kanals von der Vorderseite

Digital Audio Anschluss: JSPDIF1

JSPDIF1

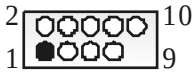
Pin	Belegung
1	+5V
2	SPDIF_Ausgang
3	Masse

Wake On LAN Header: JWOL1

JWOL1

Pin	Belegung
1	+5V_SB
2	Masse
3	Aufwecken

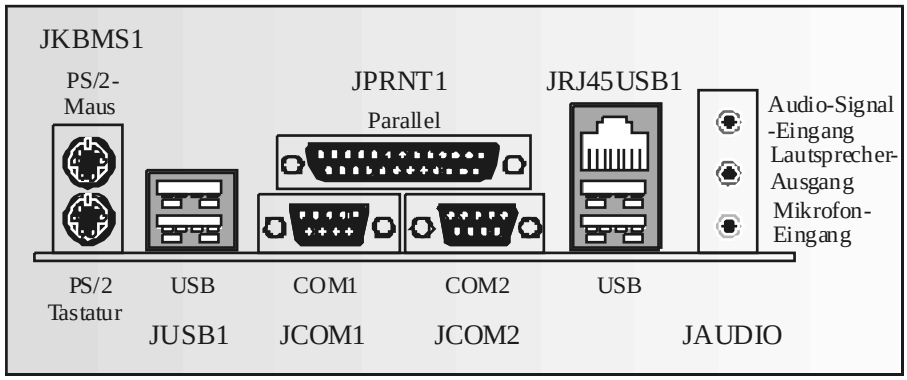
Front USB Header: JUSB3

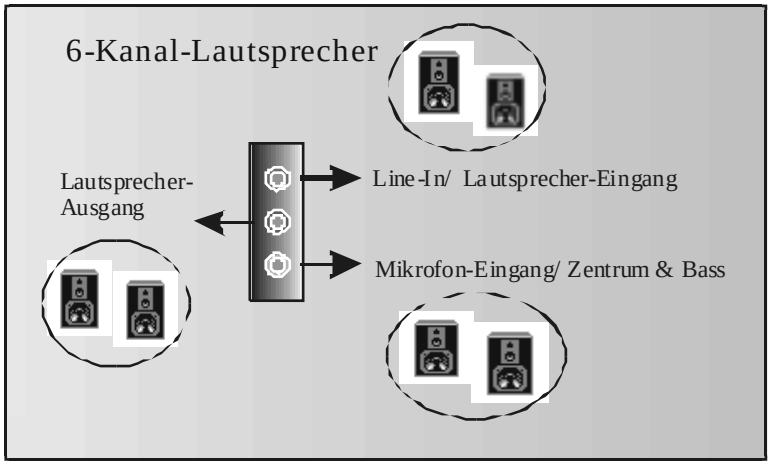


JUSB3

Pin	Belegung	Pin	Belegung
1	+5V(geschmelzt)	**2**	+5V(geschmelzt))
3	USB-	**4**	USB-
5	USB+	**6**	USB+
7	Masse	**8**	Masse
9	Kein Pin	**10**	Kein

Anschlüsse für die Rückwand





StudioFun!

Introduction

StudioFun! is a media-player based on optimized GNU/Linux distribution It plays DVD,

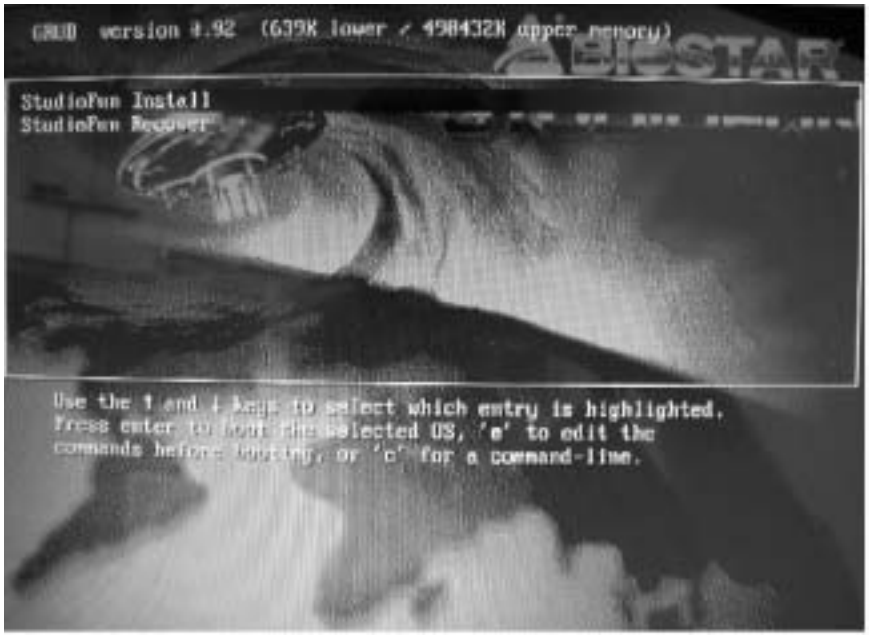
VCD, MP3, Audio CD and various other known file formats. You can take snapshots of video and customize the saved images as screensavers. You can also store the images on USB mass storage devices like flash disks and USB floppy disks.

Hardware Requirements

The supported hardware list of StudioFun! grows up every day. So please check the hwreq.txt located in the root of StudioFun! Installation CD to get the most updated information.

Installation Procedure

Insert the StudioFun! Installation CD in a CD/DVD ROM drive and let the system boot through the CD. The disk will boot and bring up the grub boot loader installation menu. Two options are specified.



Installation

This option will do the basic installation of the distribution. The installation works on pre-installed windows or GNU/Linux distribution.

On selecting the 'installation' option the installer boots and displays a dialog box indicating the space required and waits for a confirmation. Selecting Ok will continue the installation while selecting Cancel will terminate the installation and reboot the machine.

If Windows or GNU/Linux is the only OS installed on the hard disk with no free space, it will resize the partition, either NTFS or FAT32 or ext2, and install StudioFun!. In case the hard disk has a 128MB of free space available, the installation will use the free space.

After installing the base system you will be prompted to select the resolution from the following choices

1. 1024x768 (recommended)
2. 800x600
3. 640x480

Select the desired resolution. The default is 1024x768 for high-end graphics.

Next you will be prompted to choose the DVD area/region selection code. Choose this based on the type of DVDs you will be playing.

The installation procedure will then probe for the type of mouse installed. The distribution currently supports PS/2, USB and Serial mice. In case of serial mouse you will have to move the mouse when prompted. The other two are probed and installed automatically.

The installation procedure will now finish, the CD is ejected and a dialog box prompting to reboot the machine is displayed. Press OK button and enjoy StudioFun!.

3.1.1 Error Messages

1. Media corrupted!! Please check the media! The CD-ROM is corrupted
2. Extraction of base system failed!! Please try again later!! The CD-ROM is corrupted.
3. Unsupported hardware found, Aborting.. If you try to install StudioFun! on an unsupported and undocumented hardware the above error message is popped.
4. No device found! This error message is given if there is no hard disk in the system.

Recovery

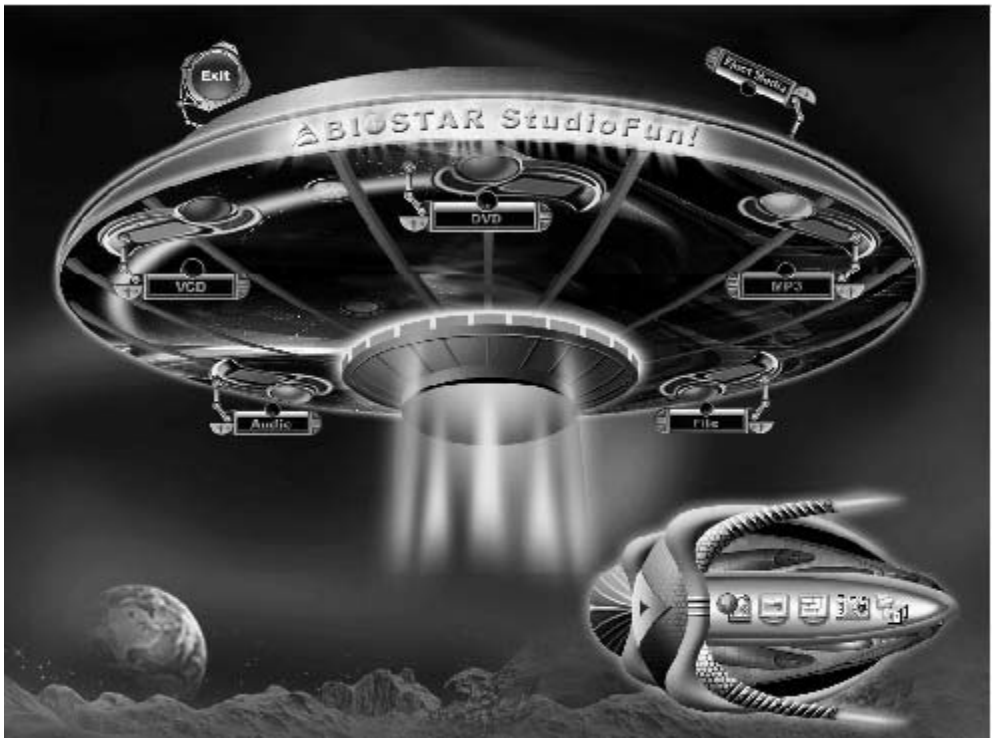
In case of a MBR corruption, this option should be used. It will automatically probe the hard disk master boot record and find out the installed operating system(s). On success it will re-install the boot loader with correct options in the MBR. Any custom boot loader option specified from other GNU/Linux installations will get over written by the newly probed one.

Booting to StudioFun!

After Installation is over, remove the CD from the CD-ROM and restart the machine. After the machine reboots, you will get the GRUB boot loader menu screen. Select the StudioFun option to boot to the StudioFun! partition.

After complete boot up, you get to the main Desktop screen. The following section is a complete description of the Desktop application.

Desktop



This is the main shell of the StudioFun software. It basically comprises of two categories, one is the main "media control" part and the other is the "control panel".

Media control

The media control part of the Desktop has the following controls:

1. VCD

This control will glow whenever a VCD is detected in a DVD/CD-ROM drive. The VCD will be auto-played only when it is put into the drive when the Desktop (StudioFun! shell) is up and running, otherwise, the control will simply glow to inform the user about a VCD

present in the DVD/CD-ROM drive.

2. DVD

This cortrol will glow whenever a DVD is detected in a DVD drive. The DVD will be auto-played only when it is put in to the drive when the Desktop (StudioFun! shell) is up and running, otherwise, the control will simply glow to inform the user about a DVD present in the DVD/CD-ROM.

3. MP3

This control will glow whenever a MP3 is detected in a DVD/CD-ROM drive. The MP3 will be auto-played only when it is put in to the drive when the Desktop (StudioFun! shell) is up and running, otherwise, the control will simply glow to inform the user about a MP3 present in the DVD/CD-ROM drive.

4. AUDIO

This control will glow whenever a AUDIO is detected in a DVD/CD-ROM drive. The AUDIO will be auto-played only when it is put in to the drive when the Desktop (StudioFun! shell) is up and running, otherwise, the control will simply glow to inform the user about a AUDIO present in the DVD/CD-ROM drive.

5. FILE

This control will glow whenever a File CD (CDs with other media type files) is detected in a DVD/CD-ROM drive. The File CD will be auto-played only when it is put in to the drive when the Desktop (StudioFun! shell) is up and running, otherwise, the control will simply glow to inform the user about a File CD present in the DVD/CD-ROM drive.

6. EJECT MEDIA

This cortrol when clicked will eject any MP3 or File CDs from any of the DVD/CDROM drives. In case there were no MP3 or File CDs it will eject the default medium, (i.e.), the CD-ROM drive in case if the user has both DVD/CD-ROM drive or else it will eject the default DVD/CD-ROM drive.

7. EXIT

This is the "Power on/off" control of the Desktop (StudioFun! shell).

Control Panel

Control panel part has five icons, which are shortcuts to other applications present in the StudioFun software. Tool tips are provided on the icons when the mouse is rolled over them.

1. Select Region

Clicking this icon will invoke the application for selection DVD region settings. Refer to section 5.2 Select DVD Region application for more details.

2. Screensaver

Clicking this icon will invoke the screensaver application. Refer to section 5.3 **Screensaver** for more details.

3. Display Settings

Clicking this icon will invoke the application for changing the screen resolutions. Refer to section 5.4, **Display Settings** for more details.

4. File Manager

Clicking this icon will invoke the file manager. Refer to section 5.6 **File manager** for more details.

When user has a DVD and a CD-ROM Drive:

If user has both DVD and a CD-ROM drive, DVD drive will be given the preference when both the drives hold valid media in them, i.e., if the CD-ROM drive has a media and a DVD drive also has a media, and the StudioFun! is started, then the media inside the DVD drive will be played.

If in case the media in CD-ROM takes a longer time to get recognized than the media inside the DVD drive, the media in the CD-ROM will be played, once if it is recognized.

Other general user scenarios

When a user clicks on any of the media-controls when it is not glowing, except eject media and exit, the media-player will just come up and wait for user input.

NO DUPLICATE INSTANCE OF ANY APPLICATION WILL BE ALLOWED TO

RUN.

Software Details

XINE

XINE is a multimedia player. It plays back Audio CD, DVD, and VCD. It also decodes multimedia files like AVI, MOV, WMV, and MP3 from local disk drives. It interprets many of the most common multimedia formats available - and some of the uncommon formats, too.

- **Features of Xine**
    a. Skinnable GUI
    b. Navigation controls (seeking, pause, fast, slow, next chapter, etc)
    c. On Screen Display (OSD) features
    d. DVD and external subtitles
    e. DVD/VCD menus (requires external plugin)
    f. Audio and subtitle channel selection
    g. Closed Caption support
    h. Brightness, contrast, audio volume, hue, saturation adjusting requires hardware/driver support)
    i. Playlists
    j. Image snapshot
    k. Audio resampling
    l. Software de-interlacing algorithms
    m. Configuration dialog
    n. Aspect ratio changing
    o. Fullscreen display

- **Supported File formats**
    a. Video CD
    b. MPEG program streams (.mpg, .mpeg)
    c. ogg (.ogg) avi (.avi)
    d. asf (.asf, .wmv)
    e. QuickTime (.mov)

f. MPEG-Video (.mpv, .m2v)
g. MPEG-Audio (.mp2, .mp3)
h. WAV (.wav) Video Codecs
i. MPEG 1/2
j. MPEG 4 (aka OpenDivX)
k. MS MPEG 4

a. Chapter 5: Software Details 10
l. Windows Media Video 7
m. Motion JPEG

- **Remote Control support.**
  a. Infrared interface
  b. User-friendly

- **Usage of StudioFun! with CelomaChrome skin**
  a. Select VCD button to play a VCD disc
  b. Select DVD button to play a DVD disc
  c. Select CDDA button to play a Audio cd
  d. Select next chapter or MRL (>>|) button to play next track in Audio CD, VCD and MP3 songs and to play next chapter in DVD
  e. Select previous chapter or MRL (|<<) button to play previous track in Audio CD, VCD and MP3 songs and to play previous chapter in DVD
  f. Select slow motion (<<) button to play the video / audio in slow motion (Select play button after reaching the required position)
  g. Select fast motion (>>) button to play the video / audio in fast motion (Select play button after reaching the required position)
  h. Select subs + / - button to select the appropriate subtitle (Usable while playing
  i. Select audio + / - button to select the appropriate audio track (For example when
  j. The DVD contains one audio track in English and the other with some other language,
  k. Usable while playing DVD's)

l. j. Select hide button to hide the control panel of the player
m. k. Select menu button to use menu's while playing DVD
n. l. Select control button to adjust brightness / color
o. Select setup button to modify the settings of the player
p. Select f.scr button to show the video output of the player in full screen mode
q. Select snap button to take a snapshot of the currently playing video
r. Select plist button to add / remove / manage playlist
s. Select mrl button to add new file to play

Error Messages

- ✧ The following error message is given if an unknown file format is selected through Xine MRL browser and played.
- ✧ While playing mp3 files, if the user stops playing and tries to select the DVD button, then the following error message is shown

Select Region

Overview

Select region is a utility to set a DVD region. With the help of this application user can set or change a DVD region. Only one region can be set at a time.

About Select Region

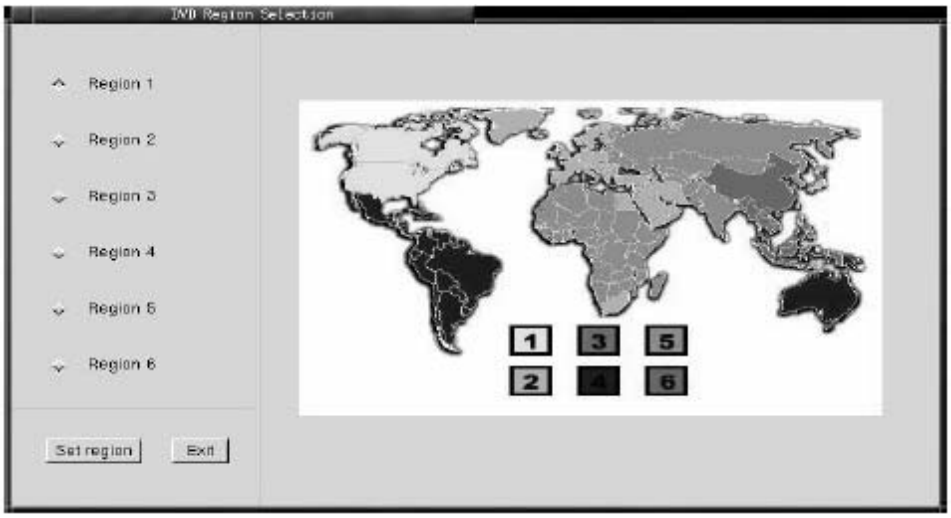
With the help of this application you can set a region for DVD. Only one region can be set at a time. If you keep the mouse pointer on any region, you can view the countries, which comes under that region.

Ok - Click to set the selected region.
Cancel - Click to quit the application.

How to select DVD region

You can select only one region at a time. You can change your selection by clicking on any other region.

• A snapshot of the application is shown below:



Screensaver

Screensaver

The xscreensaver daemon waits until the keyboard and mouse have been idle for a period, and then runs a graphics demo chosen at random. The demo is terminated as soon as there is any mouse or keyboard activity.
The xscreensaver-demo program is the graphical user interface to xscreensaver. It lets you tune the various parameters used by the xscreensaver daemon, and browse through the graphics demos.
StudioFun! comes with xscreensaver when you click on the screensaver icon the application comes up. Then user can choose various graphics demos like chbg, halo, hypercube or hyperball.

Screensaver comes with various options

• Preview Option: When a user selects a particular graphics demo and clicks on preview button the demo comes up.

• Blank After Option: The screensaver will blank the screen after the keyboard and mouse have been idle default time is 1 minute and user can change the settings.

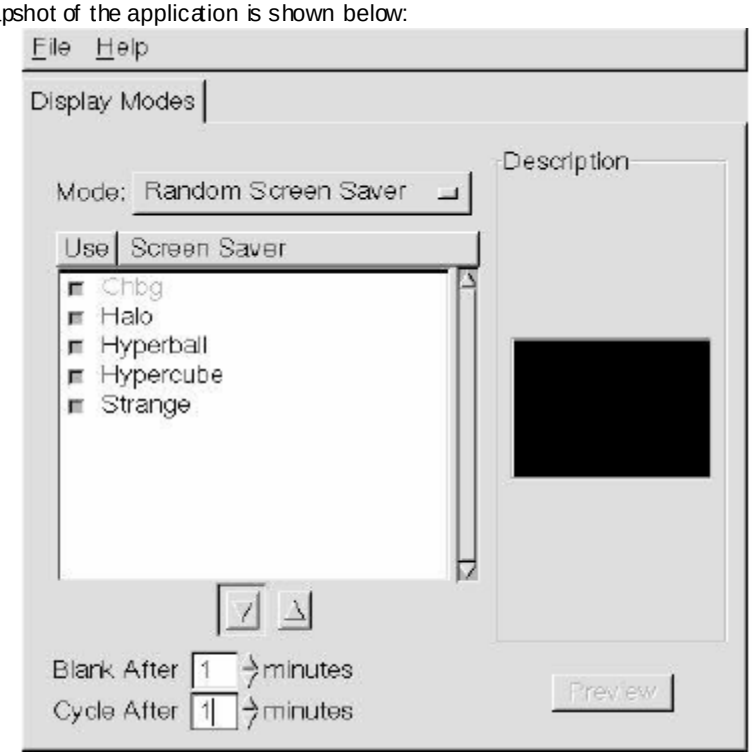
• Cycle After Option: When screensaver is running this cycle time defines the time limit for each screensaver.

• Mode Screensaver comes with various modes:
1. Random Screen Saver: When user chooses this option, Screensaver cycles through various graphics demos randomly

2. Only one Screen Saver: When user chooses this option, screensaver displays only one graphics demo.
3. Blank Screen Only: When user chooses this option, screensaver only blanks the screen instead of displaying the graphics demo.
4. Disable Screen Saver: When user chooses this option, screensaver is disabled.

• Various Graphics Demos
XScreensaver comes with various screensaver
Chbg: This screensaver displays the images stored in StudioFun! the time gap between images is 5 seconds.
Hyperball
Hypercube
Halo
Strange

• A snapshot of the application is shown below:



Display Settings

Display Settings

Display setting is a program to change the current resolution settings of the Display.
By default user of StudioFun will be given a choice to select between any of the following

three resolutions.
• 640x480
• 800x600
• 1024x768
The current resolution of the Display will be selected by default. It requires restart of the StudioFun to reflect the changes made.

File Manager

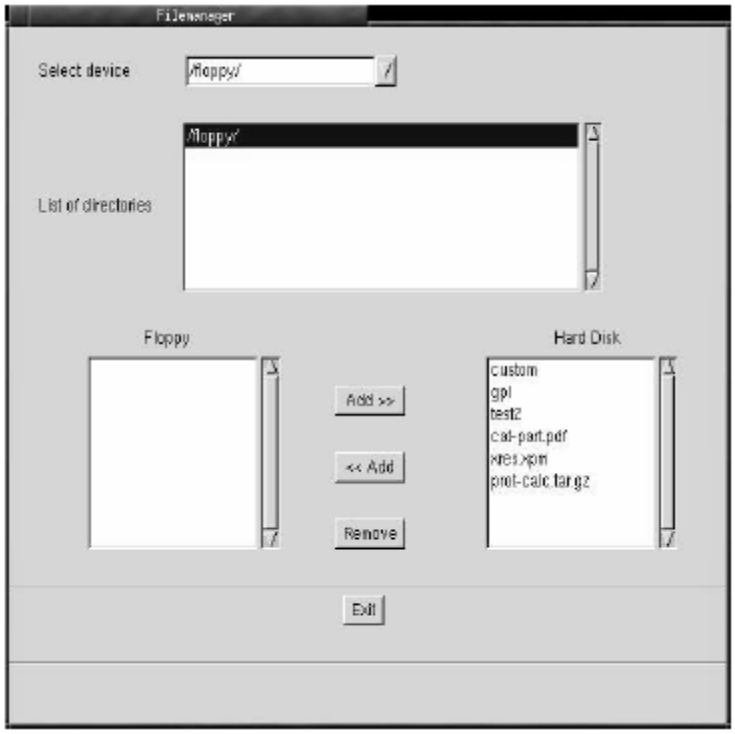
Overview

File manger is an utility to copy files from deferent devices to hard disk and vice versa. User can copy files from devices such as, floppy, cdrom and flashdisk to hard disk. And also from hard disk to floppy and flashdisk.

About File manager

The hard disk files are stored in a directory called "/studiofun" on the hard disk. You can also delete files from hard disk, but you cannot delete files from any device.

- ✧ Select device - Contains the device names /floppy, /cdrom and /flashdisk. Select a device from/to which you want to copy files. **Please double click the device option twice to mount the device.**
- ✧ List Directories - Shows the list of directories of the selected device after double clicking it.
- ✧ Floppy/cdrom/Flashdisk - Shows the contents of the selected directory from the "List directories" field after double clicking it.
- ✧ Hard disk - Shows the contents of a directory called "/studiofun".
- ✧ Add (>>) - Click to copy selected files from a device to hard disk.
- ✧ Add (<<) - Click to copy selected files from hard disk to a device.
- ✧ Remove - Click to delete files from hard disk.
- ✧ Exit - Click to quit the application.


FileManager
Select device
/floppy/
/floppy/
List of directories
Floppy
Hard Disk
custom
gpl
test2
cat-part.pdf
xres.xpm
prot-calc.tar.gz
Add >>
<< Add
Remove
Exit

WarpSpeeder

Introduction

[WarpSpeeder™], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer orthey can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, AGP and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

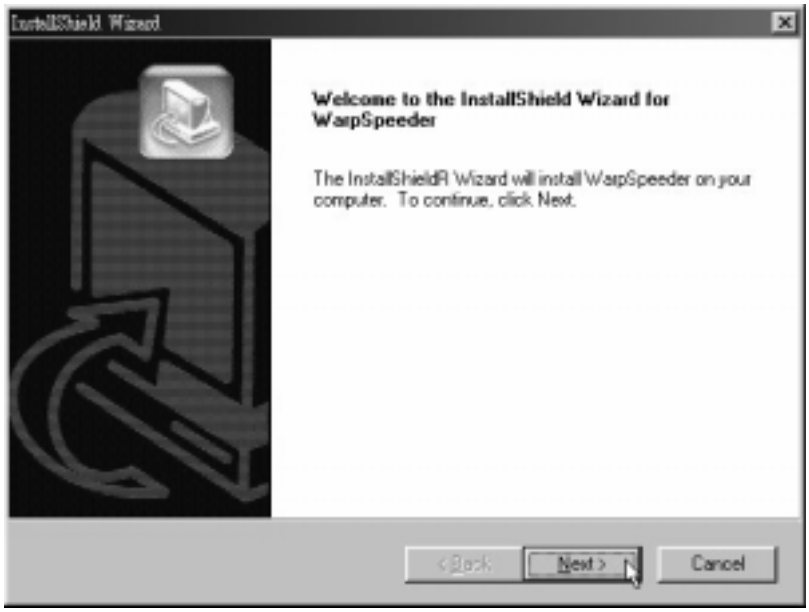
System Requirement

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

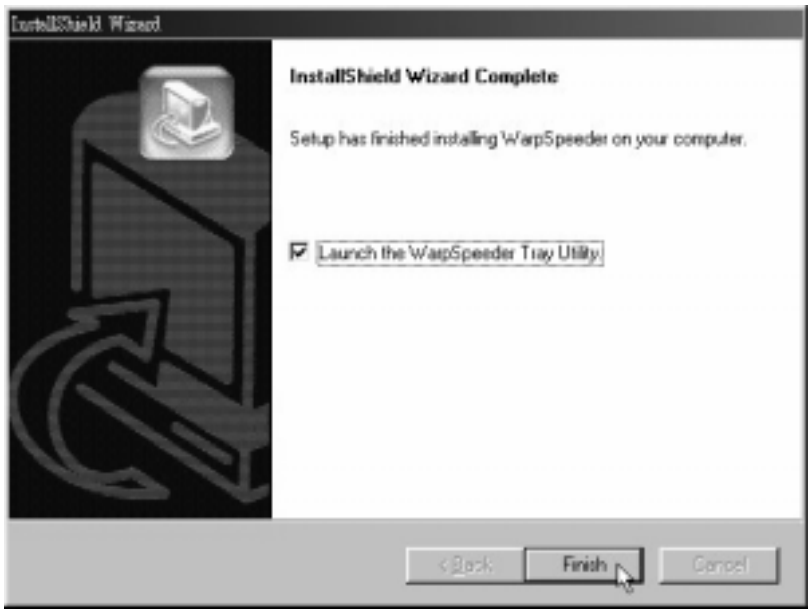
DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

Installation

1. Execute the setup execution file, and then the following dialog will pop up. Please click “Next” button and follow the default procedure to install.



2. When you see the following dialog in setup procedure, it means setup is completed. If the “Launch the WarpSpeeder Tray Utility” checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click “Finish” button.



Usage

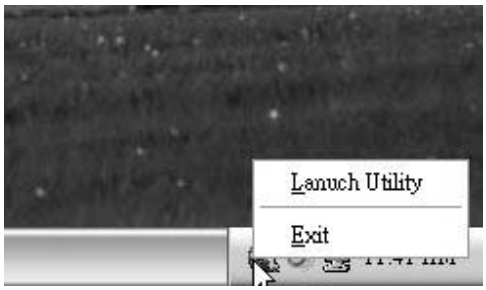
The following figures are just only for reference, the screen printed in this user manual will change according to your motherboard on hand.

[WarpSpeeder™] includes 1 tray icon and 5 panels:

1. Tray Icon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.

This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The "Launch Utility" item in the popup menu has the same function as mouse left-click on tray icon and "Exit" item will close Tray Icon utility if selected.



2. Main Panel

If you click the tray icon, [WarpSpeeder™] utility will be invoked. Please refer

do the following figure; the utility's first window you will see is Main Panel.

Main Panel contains features as follows:

a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock, and PCI clock information.

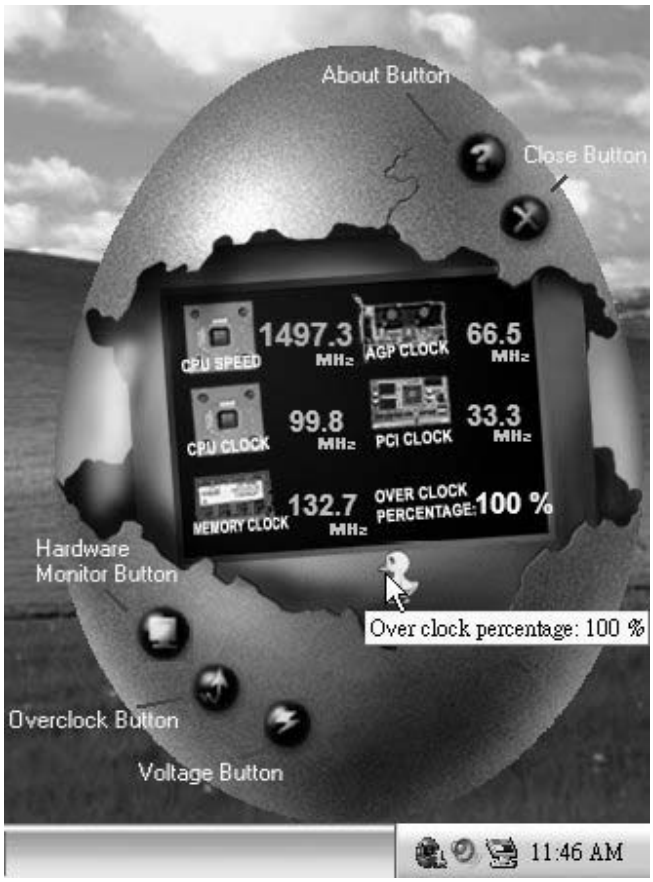
b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Duck walking => overclock percentage from 100% ~ 110 %

Duck running => overclock percentage from 110% ~ 120%

Duck burning => overclock percentage from 120% ~ above



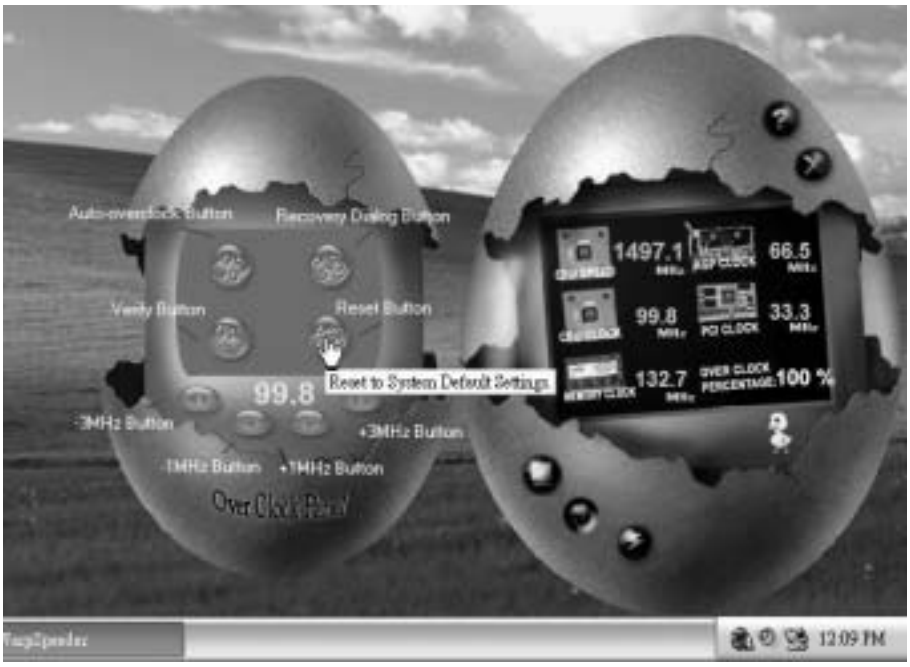
3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is "No". If you want to get the best performance of overclocking, we recommend you click the option "Yes".

4. Overclock Panel

Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

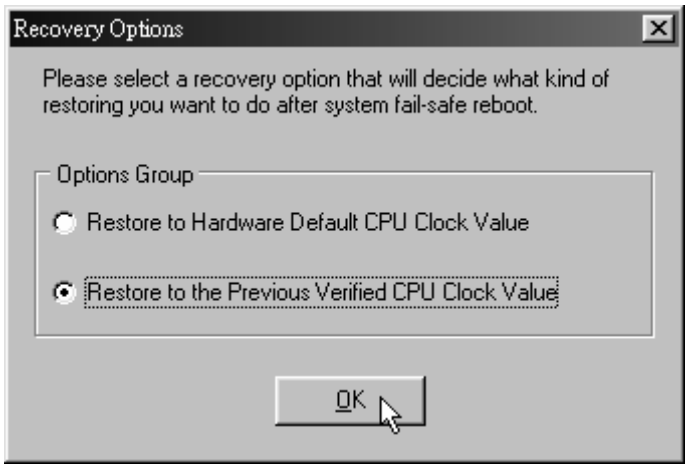


Overclock Panel contains the these features:

a. "–3MHz button", "-1MHz button", "+1MHz button", and "+3MHz button": provide user the ability to do real-time overclock adjustment.

Warning: Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™] automatically gets the best result for you.

b. "Recovery Dialog button": Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.



c. "Auto-overclock button": User can click this button and [WarpSpeeder™] will set the best and stable performance and frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

d. "Verify button": User can click this button and [WarpSpeeder™] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fail, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note: Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color(24/32 bit) that is required for Direct3D rendering.

5. Hardware Monitor Panel

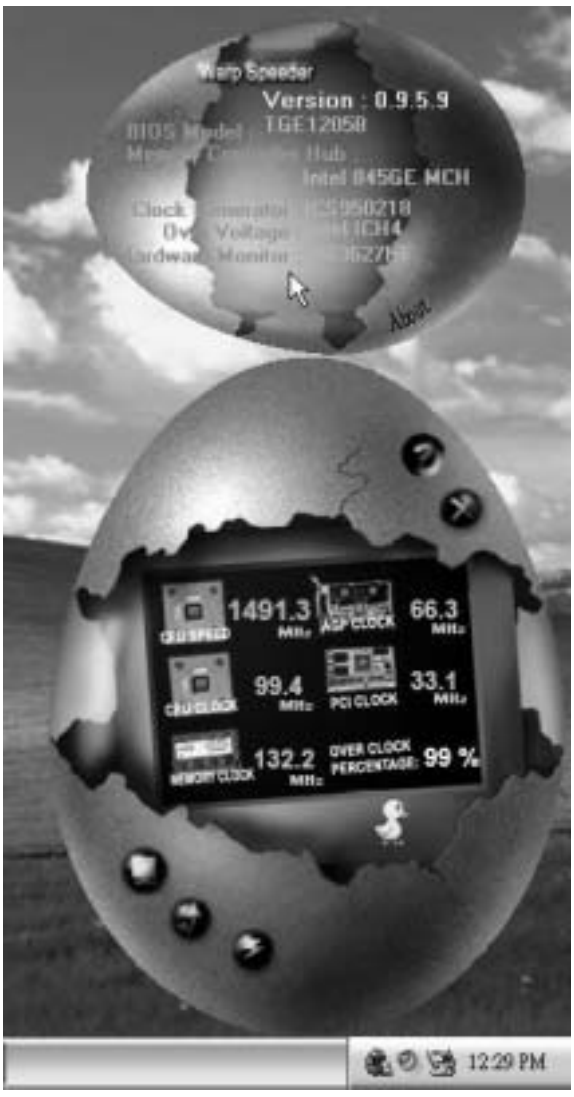
Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.

6. About Panel

Click the About button in Main Panel, the button will be highlighted and the About Panel will slide out to up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the mainboard's BIOS model and the Version number of [WarpSpeeder™] utility.



Note: Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™] utility more robust.

Trouble Shooting

PROBABLE	SOLUTION
No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. Indicator light on keyboard does not turn on	* Make sure power cable is securely plugged in * Replace cable * Contact technical support

PROBABLE	SOLUTION
System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is spinning.	* Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.

PROBABLE	SOLUTION
System does not boot from hard disk drive, can be booted from CD-ROM drive.	* Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. * Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.

PROBABLE	SOLUTION
System only boots from CD-ROM. Hard disk can be read and applications can be used but booting from hard disk is impossible.	* Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.

PROBABLE	SOLUTION
Screen message says "Invalid Configuration" or "CMOS Failure."	* Review system's equipment . Make sure correct information is in setup.

PROBABLE	SOLUTION
Cannot boot system after installing second hard drive.	* Set master/slave jumpers correctly. * Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with other drives.

Problemlösung

MÖGLICHE URSACHE	LÖSUNG
Das System hat keine Spannungsversorgung. Die Stromanzeige leuchtet nicht, der Lüfter im Inneren der Stromversorgung wird nicht eingeschaltet. Tastaturleuchten sind nicht an.	* Versichern Sie sich, dass das Stromkabel richtig angebracht ist * Ersetzen Sie das Stromkabel * Wenden Sie sich an Ihre Kundendienststelle

MÖGLICHE URSACHE	LÖSUNG
Das System funktioniert nicht. Die Tastaturleuchten sind an, die Stromanzeige leuchtet, die Festplatte dreht sich.	* Drücken Sie das DIMM-Modul bei gleichem Druck an beide Seiten, bis es einrastet.

MÖGLICHE URSACHE	LÖSUNG
Das System wird von der Festplatte nicht hochgefahren, vom CD-ROM-Treiber aber ja.	* Überprüfen Sie das Kabel zwischen Festplatte und Festplatten-Controller. Versichern Sie sich, dass beide Enden richtig angebracht sind; überprüfen Sie den Laufwerktyp in der standardmäßigen CMOS-Einrichtung. * Ein Backup der Festplatte ist sehr wichtig. Alle Festplatten können irgendwann beschädigt werden.

MÖGLICHE URSACHE	LÖSUNG
Das System wird nur von der CD-ROM hochgefahren. Die Festplatte wird gelesen und die Anwendungen sind funktionsfähig, aber es ist nicht möglich, das System von der Festplatte zu starten.	* Machen Sie eine Sicherungskopie von allen Daten und Anwendungsdateien. Formatieren Sie die Festplatte und reinstallieren Sie die Anwendungen und Daten mit Hilfe von Backup-Disks.

MÖGLICHE URSACHE	LÖSUNG
Auf dem Bildschirm erscheint die Meldung "Ungültige Konfiguration" oder "CMOS Fehler."	* Überprüfen Sie die Systemkomponenten und versichern Sie sich, das diese richtig eingerichtet sind.

MÖGLICHE URSACHE	LÖSUNG
Das System kann nach der Installation einer zweiten Festplatte nicht hochgefahren werden.	* Setzen Sie die Master/Slave-Jumper richtig ein. * Führen Sie das SETUP-Programm aus und wählen Sie die richtigen Laufwerktypen. Wenden Sie sich an den Laufwerkhersteller, um die Kompatibilität mit anderen Laufwerken zu überprüfen.

05/22/2003

P4TPE800 BIOS Setup

BIOS Setup

Introduction

This manual discussed Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Pentium ® 4 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. This AWARD BIOS can manage power to the hard disk drives and video monitors .

ACPI Support

Award ACPI BIOS support Version 1.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR DRAM (Double Data Rate Synchronous DRAM) are supported.

Supported CPUs

This AWARD BIOS supports the Intel Pentium ® 4 CPU.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

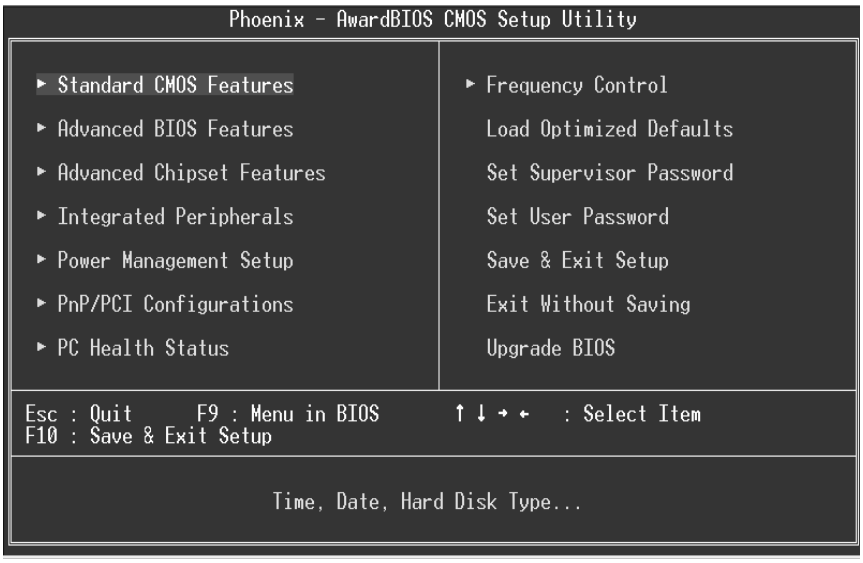
Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ Key	Increase the numeric value or make changes
- Key	Decrease the numeric value or make changes
Esc key	Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

1 Main Menu

Once you enter Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

> *!! WARNING !!*
>
> The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

■ **Figure 1. Main Menu**



Standard CMOS Features

This submenu contains industry standard configurable options.

Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

Advanced Chipset Features

This submenu allows you to configure special chipset features.

Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

PC Health Status

This submenu allows you to monitor the hardware of your system.

Frequency Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. **(However, this function is strongly recommended not to use. Not properly change the voltage and clock may cause CPU or M/B damage!)**

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.

Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.

Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.

Save & Exit Setup

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.

Exit Without Saving

Abandon all changes made during the current session and exit setup. Confirmation message will be displayed before proceeding.

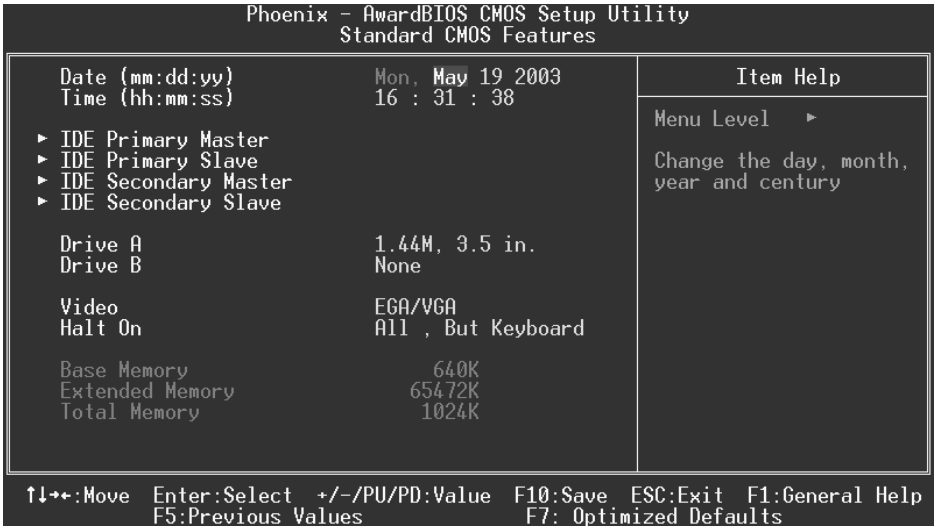
Upgrade BIOS

This submenu allows you to upgrade bios.

2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the<PgUp> or <PgDn> keys to select the value you want in each item.

■ **Figure 2. Standard CMOS Setup**



Main Menu Selections

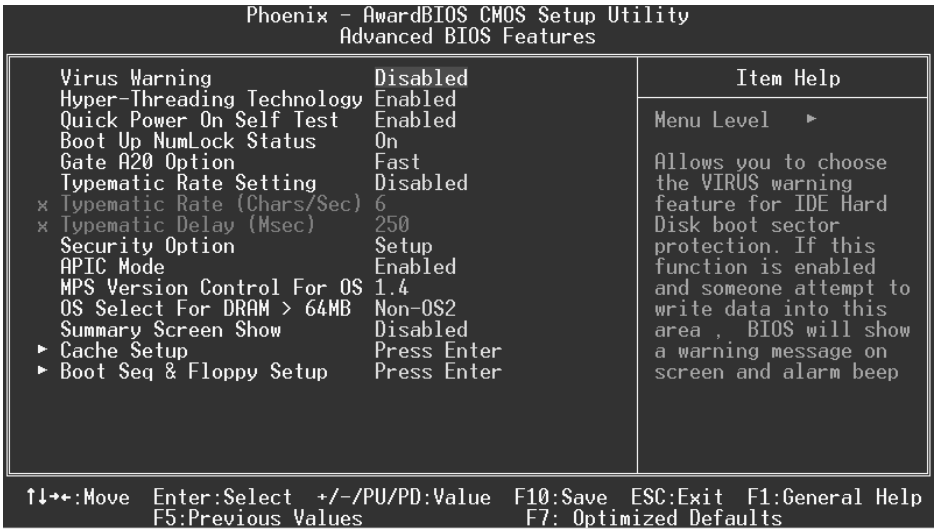
This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	mm : dd : yy	Set the system date. Note that the 'Day' automatically changes when you set the date.
Time	hh : mm : ss	Set the system internal clock.
IDE Primary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options
IDE Primary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
Drive A Drive B	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

Item	Options	Description
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop the POST process and notify you.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

3 Advanced BIOS Features

■ **Figure 3. Advanced BIOS Setup**



Virus Warning

This option allows you to choose the Virus Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Enabled	Virus protection is activated.
Disabled (default)	Virus protection is disabled.

Hyper-Threading Technology

This option allows you to "Enabled" for Windows XP and LINUX 2.4.x (OS optimized for Hyper-Threading Technology). "Disabled" for other OS (OS not optimized for Hyper-Threading Technology).

The Choices: Enabled (default), Disabled.

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

Disabled	Normal POST.
Enabled (default)	Enable quick POST.

Boot Up NumLock Status

Selects the NumLock. State after power on.

On (default)	Numpad is number keys.
Off	Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

Normal	A pin in the keyboard controller controls Gate A20.
Fast (default)	Lets chipset control Gate A20.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.

The Choices: Disabled (default), Enabled.

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down.

The Choices: 6 (default)**,** 8,10,12,15,20,24,30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.

The Choices: 250 (default)**,** 500,750,1000.

Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

System	A password is required for the system to boot and is also required to access the Setup Utility.
Setup (default)	A password is required to access the Setup Utility only.

This will only apply if passwords are set from the Setup main menu.

APIC Mode

Selecting Enabled enables ACPI device mode reporting from the BIOS to the operating system.

The Choices: Enabled (default), Disabled.

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.

The Choices: 1.4 (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.

The Choices: Non-OS2 (default), OS2.

Summary Screen Show

This item allows you to enable/disable the summary screen. Summary screen means system configuration and PCI device listing.

The choices: Enabled, **Disabled** (default).

Cache Setup

CPU L1&L2 Cache

Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

Enabled (default)	Enable cache.
Disabled	Disable cache.

Boot Seq and Floppy Setup

First /Second/Third/ Boot Other Device

These BIOS attempt to load the operating system from the devices in the sequence selected in these items.

The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled, Enabled.

Swap Floppy Drive

For systems with two floppy drives, this option allows you to swap logical drive assignments.

The Choices: Enabled, **Disabled** (default).

Report No FDD For WIN 95

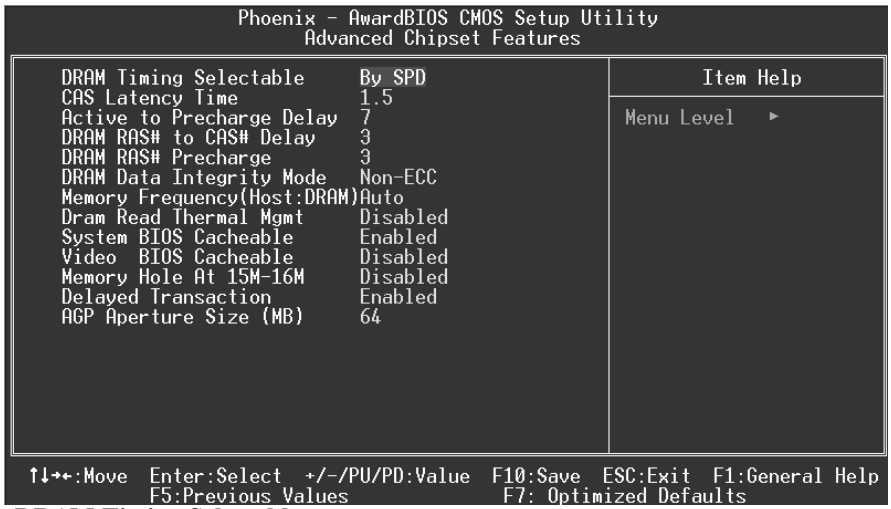
Whether report no FDD for Win 95 or not.

The Choices: No (default), Yes.

4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM and external cache. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

- **Figure 4. Advanced Chipset Setup**



DRAM Timing Selectable

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.

The Choices: By SPD (default), Manual.

CAS Latency Time

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.

The Choices: 1.5 (default), 2, 2.5, 3

Active to Precharge Delay

This item controls the number of DRAM clocks to activate the precharge delay.

The Choices: 7 (default), 6, 5.

DRAM RAS# to CAS# Delay

This field let you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. Fast gives faster performance; and slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

The Choices: 3 (default), 2.

DRAM RAS# Precharge

If an insufficient number of cycle is allowed for RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete, and the DRAM may fail to retain data. Fast gives faster performance; and Slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

The Choices: 3 (default), 2.

DRAM Data Integrity Mode

This item select supported ECC or Non-ECC for DRAM.

The Choices: Non-ECC (default), ECC.

Memory Frequency (Host:DRAM)

This item allows you to select the Memory Frequency(Host:DRAM).

The Choices: Auto (default), 1:1, 1:1.33.

Dram Read Thermal Mgmt

The Intel 845 Chipset MCH provides Memory Thermal Management functionality. It increases the system reliability by decreasing thermal stress on system memory and on the Intel 845 Chipset MCH.

The Choices: Disabled (default), Enabled.

System BIOS Cacheable

Selecting Enabled allows you caching of the system BIOS ROM at F0000h~FFFFFh, resulting a better system performance. However, if any program writes to this memory area, a system error may result.

The Choices: Enabled (default), Disabled.

Video BIOS Cacheable

Select Enabled allows caching of the video BIOS, resulting a better system performance. However, if any program writes to this memory area, a system error may result.

The Choices: Disabled (default), Enabled.

Memory Hole At 15M-16M

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved it cannot be cached. The user information of peripherals that need to use this area

of system memory usually2 discussed their memory requirements.
The Choices: Disabled (default), Enabled.

Delayed Transaction

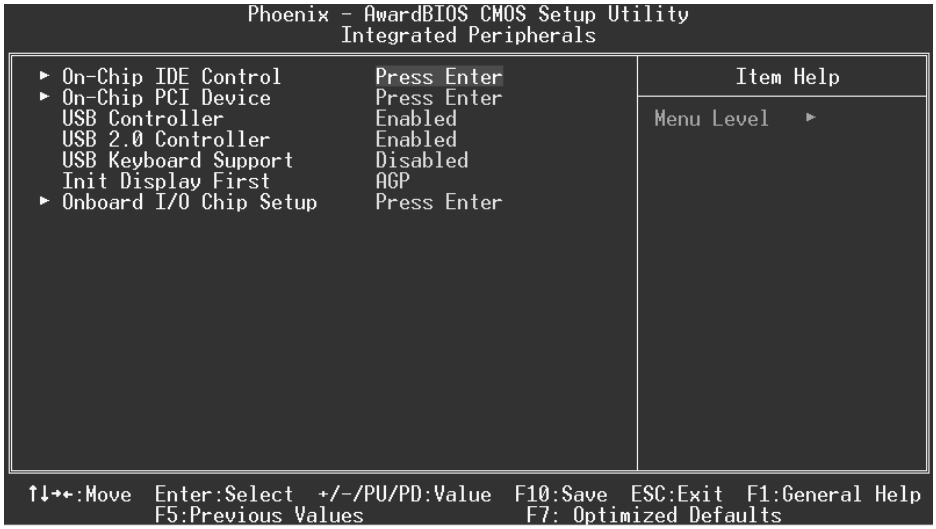
The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification version 2.1.
The Choices: Enabled (default), Disabled.

AGP Aperture Size (MB)

Select the size of the Accelerated Graphics Port (AGP) aperture. The apertures is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.
The Choices: 64 (default), 4, 8, 16, 32, 128, 256.

5 Integrated Peripherals

■ **Figure 5. Integrated Peripherals**



On-Chip IDE Control

On-Chip Primary / Secondary PCI IDE
The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately.
The Choices: Enabled (default), Disabled.

IDE Primary / Secondary Master / Slave PIO
The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 through 4 provides successively increased performance. In Auto mode, the system automatically determines the best mode for each device.
The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

IDE Primary / Secondary Master / Slave UDMA
Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to enable BIOS support.
The Choices: Auto (default), Disabled.

On-Chip PCI Device

AC97 Audio/ Modem
This item allows you to decide to enable/ disable to support AC97 Audio/Modem.
The Choices: Auto (default), Disabled.

Onboard LAN Boot ROM
Decide whether to invoke the boot ROM of the onboard LAN chip.
The Choices: Disabled, **Enabled** (default).

USB Controller

Select Enabled if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals.
The Choices: Enabled (default), Disabled.

USB 2.0 Controller

This item allows you to Enable or Disable the USB 2.0 Controller.
The Choices: Enabled (default), Disabled.

USB Keyboard Support

The default value is Disabled.

Enabled	Enable USB Keyboard Support.
Disabled (default)	Disable USB Keyboard Support.

Init Display First

This item allows you to decide to active whether PCI Slot or on-chip VGA first.
The Choices: AGP (default), PCI Slot.

Onboard I/O Chip Setup

POWER ON Function
This item allows you to Power on the system by Keybord and Mouse .
The Choices: Password , Hot KEY , Mouse Move , Mouse Click , Any KEY , BUTTON ONLY, Keyboard 98, **Disabled** (default).

KB Power on Password
Input password and press Enter to set the Keyboard power on password .

HOT Key power ON
Input password and press Enter to set the Keyboard power on password .
The Choices: Ctrl-F1(default) , Ctrl-F2, Ctrl-F3, Ctrl-F4, Ctrl-F5, Ctrl-F6, Ctrl-F7, Ctrl-F8, Ctrl-F9, Ctrl-F10, Ctrl-F11, Ctrl-F12 .

Onboard FDC Controller
Select Enabled if your system has a floppy disk controller (FDC) installed on the system

board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.
The Choices: Enabled (default), Disabled.

Onboard Serial Port 1
Select an address and corresponding interrupt for the first and second serial ports.
The Choices: 3F8/IRQ4 (default), Disabled, Auto, 2F8/IRQ3,
3E8/IRQ4, 2E8/IRQ3.

Onboard Serial Port 2
Select an address and corresponding interrupt for the first and second serial ports
The Choices: 2F8/IRQ3 (default), Disabled, Auto, 3F8/IRQ4, 3E8/IRQ4, 2E8/IRQ3.

UART Mode Select
This item allows you to determine which Infrared (IR) function of onboard I/O chip.
The Choices: Normal (default), ASKIR, IrDA , SCR .

UR2 Duplex Mode
Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time.
The Choices: Half (default), Full.

Onboard Parallel Port
This item allows you to determine access onboard parallel port controller with which I/O Address.
The Choices: 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode
The default value is SPP.

SPP (default)	Using Parallel Port as Standard Printer Port.
EPP	Using Parallel Port as Enhanced Parallel Port.
ECP	Using Parallel Port as Extended Capabilities Port.
ECP+EPP	Using Parallel Port as ECP & EPP mode.

ECP Mode Use DMA
Select a DMA Channel for the port.
The Choices: 3 (default), 1.

PWRON After PWR-Fail
This field determines the action the system will automatically take when power is restored to a system that had lost power previously without any subsequent manual intervention. There are 3 sources that provide current to the CMOS area that retains these Power-On instructions; the motherboard battery (3V), the Power Supply (5VSB), and the Power Supply (3.3V). While AC is not supplying power, the motherboard uses the motherboard battery (3V). If AC power is supplied and the Power Supply is not turned on, 5VSB from the Power Supply is used. When the Power Supply is eventually turned on 3.3V from the

Power Supply will be used.
There are 3 options: "Former-Sts", "On", "Off".

"Former-Sts**"**	Means to maintain the last status of the CMOS when AC power is lost.
"On"	Means always set CMOS to the "On" status when AC power is lost
"**Off**" (default)	Means always set CMOS to the "Off" status when AC power is lost.

For example: If set to "Former-Sts" and AC power is lost when system is live, then after AC power is restored, the system will automatically power on. If AC power is lost when system is not live, system will remain powered off.

Game Port Address
Game Port I/O Address.
The Choices: 201 (default), 209, Disabled.

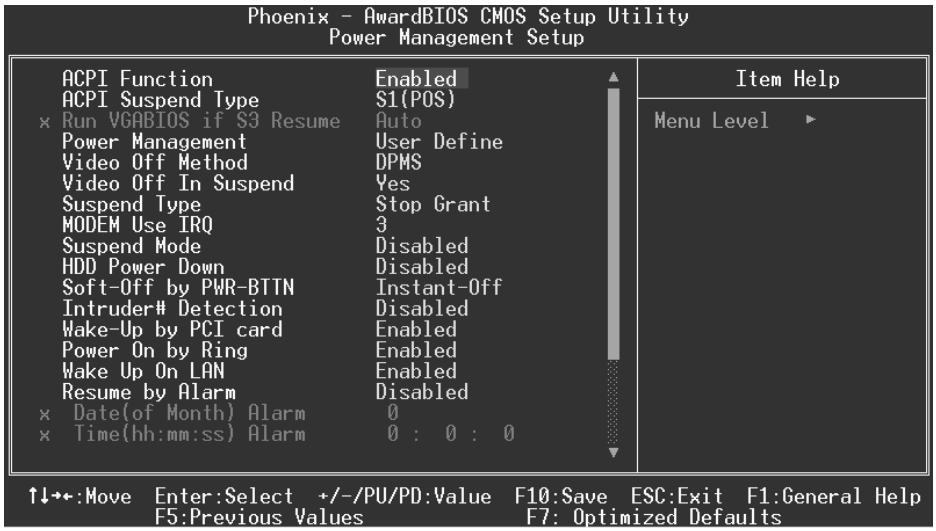
Midi Port Address
Midi Port Base I/O Address.
The Choices: 330 (default), 300, Disabled.

Midi Port IRQ
This determines the IRQ in which the Midi Port can use.
The Choices: 10 (default), 5.

6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

- **Figure 6. Power Management Setup**



ACPI Function

This item displays the status of the Advanced Configuration and Power Management (ACPI).

The Choices: Enabled (default), Disabled.

ACPI Suspend Type

The item allows you to select the suspend type under the ACPI operating system.

The Choices: S1 (POS) (default)		Power on Suspend
	S3 (STR)	Suspend to RAM
	S1 & S3	POS+STR

Run VGABIOS if S3 Resume

Choosing Enabled will make BIOS run VGA BIOS to initialize the VGA card when system wakes up from S3 state . The system time is shortened if you disable the function , but system will need AGP driver to initialize the card . So , if the AGP driver of the VGA card does not support the initialization feature , the display may work abnormally or not function after S3 .

The Choices:Auto (default), Yes, No.

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:
1.HDD Power Down.
2.Doze Mode.
3.Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings

Min. Saving

Minimum power management.
Doze Mode = 1 hr.
Standby Mode = 1 hr
Suspend Mode = 1 hr.
HDD Power Down = 15 min

Max Saving

Maximum power management only available for sl CPU's.
Doze Mode = 1 min
Standby Mode = 1 min.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

User Defined (default)

Allows you to set each mode individually.
When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

Video Off Method

This option determines the manner in which the monitor is goes blank.

V/H SYNC+Blank

This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen

This option only writes blanks to the video buffer.

DPMS (default)

Initial display power management signaling.

Video Off In Suspend

This determines the manner in which the monitor is blanked.
The Choices: Yes (default), No.

Suspend Type

Select the Suspend Type.
The Choices: Stop Grant (default), PwrOn Suspend.

MODEM Use IRQ

This determines the IRQ, which can be applied in MODEM use.
The Choices:3 (default)/ 4 / 5 / 7 / 9 / 10 / 11 / NA

Suspend Mode

When enabled and after the set time of system inactivity, all devices except the CPU will be shut off.
The Choices: Disabled (default), 1Min, 2Min, 4Min, 8Min, 12Min, 20Min, 30Min, 40Min, 1Hour.

HDD Power Down

When enabled and after the set time of system inactivity , the hard disk drive will be powered down while all other devices remain active.
The Choices: Disabled (default), 1Min, 2Min, 3Min, 4Min, 5Min, 6Min, 7Min, 8Min, 9Min, 10Min, 11Min, 12Min, 13Min, 14Min, 15Min.

.

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."
The Choices: Delay 4 Sec, **Instant-Off** (default).

Intruder# Detection

This item allows you to enabled or disabled Intruder# Detection.
The Choices: Disabled (default), Enabled.

Wake-Up by PCI card

When you select Enable, a PME signal from PCI card returns the system to Full On state.
The Choices: Enabled (default), Disabled.

Power On by Ring

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.
The Choices: Enabled (default), Disabled.

Wake Up On LAN

To use this function, you need a LAN add-on card which support power on function. It should also support the wake-up on LAN jumper.

The Choices: Enabled (default), Disabled.

Resume by Alarm

This function is for setting date and time for your computer to boot up. During Disabled, you cannot use this function. During Enabled, Choose the Date and Time Alarm:

Date (of Month) Alarm You can choose which month the system will boot up.

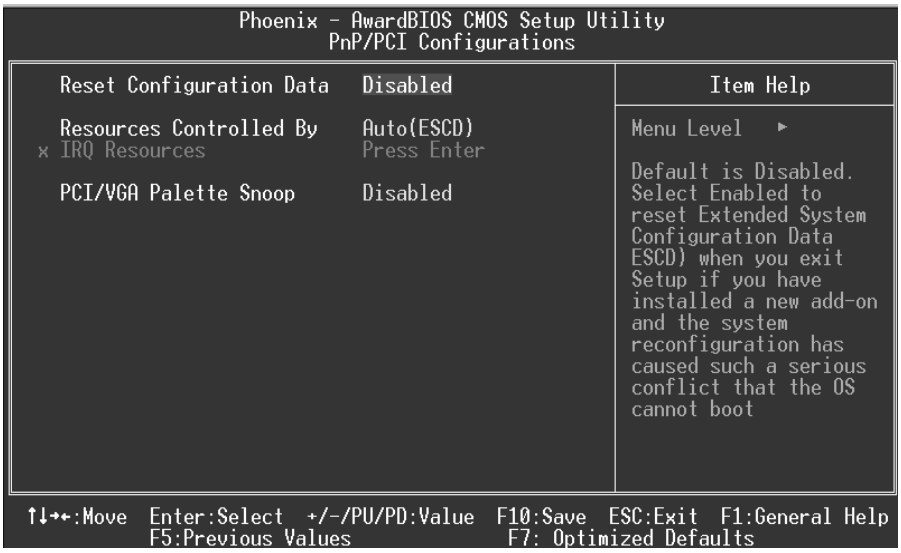
Time (hh:mm:ss) Alarm You can choose shat hour, minute and second the system will boot up.

Note: *If you have change the setting, you must let the system boot up until it goes to the operating system, before this function will work.*

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

- **Figure 7. PnP/PCI Configurations**



Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.
Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides

non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing "**Auto(ESCD)**" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral.By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when "Resources Controlled By" is set to "Manual".

IRQ-3	assigned to	PCI Device
IRQ-4	assigned to	PCI Device
IRQ-5	assigned to	PCI Device
IRQ-7	assigned to	PCI Device
IRQ-9	assigned to	PCI Device
IRQ-10	assigned to	PCI Device
IRQ-11	assigned to	PCI Device
IRQ-12	assigned to	PCI Device
IRQ-14	assigned to	PCI Device
IRQ-15	assigned to	PCI Device

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

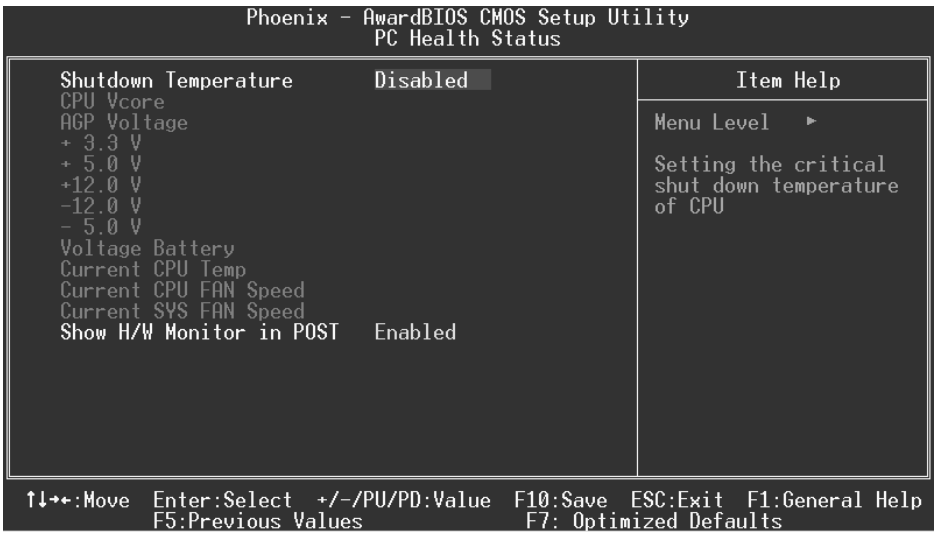
However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled(default)	Disables the function.
Enabled	Enables the function.

8 PC Health Status

■ **Figure 8. PC Health Status**



Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item only effective under Windows 98 ACPI mode.

The Choices: 60^{O}C/140^{O}F, 65^{O}C/149^{O}F, 70^{O}C/158^{O}F, **Disabled** (default).

CPU Vore/AGP Voltage/+3.3V/+-5V/+-12V/ Voltage Battery

Detect the system's voltage status automatically.

Current CPU Temp

Show you the current CPU1 temperature.

Current SYS FAN Speed

This field displays the current speed SYSTEM fan.

Current CPU FAN Speed

This field displays the current CPUFAN speed.

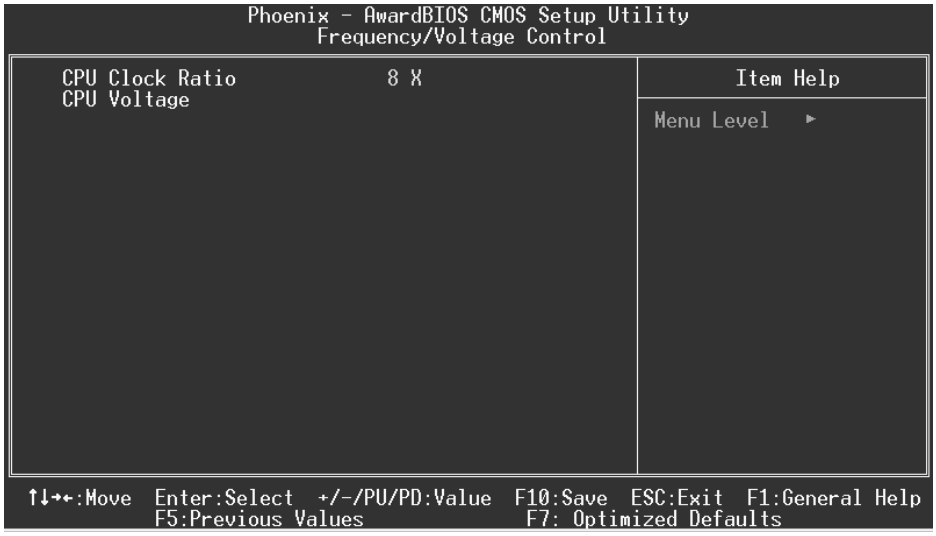
Show H/W Monitor in POST

If you computer contain a monitoring system, it will show PC health status during POST stage. The item offers several delay time to select you want.

The Choices: Enabled (default), Disabled .

9 Frequency Control

■ **Figure 9. Frequency Control**



CPU Clock Ratio

This item allows you to select the CPU Ratio.

CPU Voltage

This item allows you to select CPU Voltage Regulator.

The Choices: Default (default), +1.7%, +3.45%, +5.1%.