
XPC User Guide

For the : SN26P

Statement of Shuttle Mainboard via the EMI Test

Shuttle mainboards have been via the EMI test in terms of series of regulations: EN55022/CISPR22/AS/NZS3548 Class B, EN55024 (1998/AS/NZS), EN4252.1 (1994), EN61000, ANSI C63.4 (1992), CFR47 Part 15 Subpart B, and CNS13438 (1997). The items tested are illustrated as follows:

(A) Voltage: AC 110V/60HZ & AC 230V/50HZ

(B) Tested Product Information:

Product Name: PC Mainboard

Status: Sample

Model Name: SN26P

S/N: N/A

CPU:

External Frequency: 200 MHz

AMD Athlon™ 64 : 2800+, 3200+, 3400+, 3800+, 4000+

Serial Port: one port with 9 pins

Clear CMOS button: one port

Keyboard Port: one port with 6 pins

Mouse Port: one port with 6 pins

USB 2.0 Port: six ports with 4 pins respectively

1394 Port: two port with 6 pins respectively

LAN Port: one port with 8 pins (10Mbps/100Mbps/1000Mbps)

Mic-In & Line-In & Earphone Ports: one port for each

Center/Bass-Out Port: one port

Surround-Out Port: one port

Surround-Back Port: one port

Front-Out Port: one port

SPDIF-Out (Coaxial) Port: one port

SPDIF-Out (Optical) Port: one port

SPDIF-In (Optical) Port: one port

DIMM Memory (optional): DDR400 256 MB *2

Power Cable: Detachable and Shielded (with a GND pin)

Monitor: CRT

Maximum Resolution: 1280 X 1024 V:60Hz

All CPUs have completely been tested, and values offered by the worst EMI combination of CPU external frequency are listed as follows:

Test Mode	External Frequency	CPU	CPU Open/Close
1	200MHz	AMD Athlon™ 64 4000 +	Close
2	200MHz	AMD Athlon™ 64 4000 +	Open

(C) Remedy for the Tested Product & Its EMI Interference:

Remedy: N/A

EMI Interference:

Crystal : 32.768 KHz(X8)/ 25 MHz(X7)/ 22.5 MHz(X9)/ 24.576 MHz(X10)/ 24.576 MHz(X6)

(D) Supported Host Peripherals:

Host Peripheral	Product Name	Model Name
# 1	Case	SN26P
# 2	Power Supply	PC43I3503
# 3	Serial ATA II HITACHI	S2VT9K9M
# 4	Serial ATA II HITACHI	S2VT9K9M
# 5	Card Reader	W4604B007001
# 6	DVD Dual Player	P10437007994
# 7	WINFAST PX6800GT	W1100892
# 8	WINFAST PX6800GT	W1100892

(E) Notices for Assembling Computers:

1. Cases should be made of iron or other metal that has good electric conductivity.
2. Cylinders in a case should be made of metal, and as having a mainboard mounted in a case, make sure screws are all utilized and fastened on a mainboard.
3. An I/O shielding should be contacted with I/O metallic parts of a mainboard.
4. Cables should appropriately be arranged and fixed in a case. Follow instructions:
 - Leave IDE cables not crossed upon CPU and SDRAM;
 - Leave power cables minimum in length, and not crossed upon a mainboard;
 - Leave CPU fan cables minimum in length, and not near CPU;
 - Leave cables on panels and other spare cables tied in a computer case.
5. Make sure an EMI shielding attached to a case has properly been installed.
6. Make sure a 5.25" or 3.5" FDD and screws are fastened to an EMI shielding.
7. Make sure a case is closely in contact with EMI connected points.
8. Make sure there is no cleft in a case which is not deformed.
9. Make sure a PCI or AGP door is bound to a case.
10. Make sure cables of other devices (fans or some others) are fixed in a case.

Shuttle®

XPC Installation Guide

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This device complies with Part 15 of the FCC Rules, Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

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AWARD is a registered trademark of Award Software Inc.

Microsoft and Windows are registered trademarks of Microsoft Corporation.

General Notice

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Safety Information

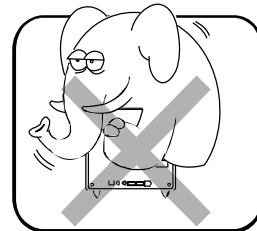
Read the following precautions before setting up a Shuttle XPC.

CAUTION

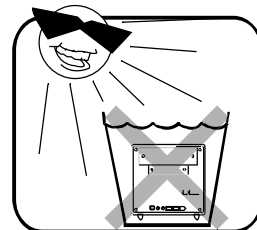
Incorrectly replacing the battery may damage this computer. Replace only with the same or equivalent as recommended by Shuttle. Dispose of used batteries according to the manufacturer's instructions.

Installation Notices

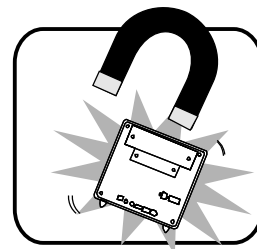
Do not place this device underneath heavy loads or in an unstable position.



Do not expose this device to high levels of direct sunlight, high-humidity or wet conditions.



Do not use or expose this device around magnetic fields as magnetic interference may affect the performance of the device.



Do not block the air vents to this device or impede the airflow in any way.

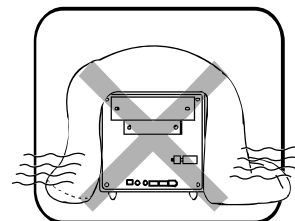


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1 Function Introduction

■ 1.1 XPC Introduction

The Shuttle XPC is the original high-performance Small Form Factor (SFF) computer. Since the first model was introduced in 2001, the XPC has become the world's best-selling SFF computer brand.

Each Shuttle XPC is sold as a "barebone" computer ~ chassis, power supply and motherboard. The user must add his own processor, memory, drives and, as applicable, expansion cards. The XPC has been designed to be easily assembled and configured directly by the end user. Consumers can choose to buy preconfigured, ready-to-run XPC's as well ~ a list of Shuttle-authorized value-added resellers can be found at www.shuttle.com.

The Shuttle XPC owes its popularity to its unique combination of small-size, high-performance and near universal component compatibility. However, unlike ordinary desktop computers, Shuttle XPC's have been engineered as complete systems.

The XPC concept can be summarized as:

Use of high-performance, industry-standard components; Minimum size possible, while preserving component compatibility and system expansion; Focus on quality ~ a commitment to quality construction, materials and industrial design.

To meet the above requirements, Shuttle has created and patented dozens of new technologies, including the Integrated Cooling Engine (ICE), which extend and enhance the personal computing experience while reducing heat, noise and space requirements.

Thank you for choosing the Shuttle XPC!



■ 1.2 Model Specifications

Form Factor

Shuttle Small Form Factor

Processor

AMD 939 pin package with 200MHz x 5 FSB

Chipset

nVIDIA nForce 4 SLI

Memory

184 pins 333/400 DDR SDRAM DIMM X2 with Dual-Channel Mode configuration
Supports 256Mb, 512Mb, and 1Gb technologies for X8 and X16 devices

Audio

H/W Audio Envy24 (7.1-CHANNEL)

Ethernet

Mravell 88E1111 PCI-E Lan Controller, supports Wake-on-Lan (WOL) function
10/100/1000 Mb/s LAN operation

IEEE 1394a

VIA VT6307, 1394 OHCI v1.0 compliant, Up to 400Mb/s data transfer rate

Serial ATA

nVIDIA integrated SATA, Dual Channel UDMA 300MB/s S-ATA
Support RAID 0, 1, 0+1 & 5

Onboard headers & connectors

(4) Fan connectors	(1) Line_in header	(1) AUX_IN header
(1) mini CD_in header	(1) Power & reset header	(1) IR header
(2) 1x5 pin USB 2.0 headers	(4) USB 2.0 connectors	(4) SATA connectors
(1) Printer port header	(2) Power connector	(2) PCI-E X16 slots
(1) PS2 Keyboard/ Mouse Header	(1) Floppy connector	(1) IDE connector

PSU

Output: 350 Watt, Input: 100/240V AC, Active PFC, FCC, CE, BSMI, UL, TUV, CB certificated

Chassis

P, Dimension: 325 (L) x 220 (W) x 210 (H)
Bay: (1) 3.5" bay (1) 3.5" bays (internal) (1) 5.25" bay


■ 1.3 XPC Exterior Dissection

Note : Shuttle offers a variety of different XPC models loaded with various options. The illustration below will help familiarize you with the included features in your new XPC.

■ 1.3.1 XPC Front


1. Card R/W (MS, MS Pro, MMC, SD, SM)

2. Card R/W (CF Type I/II, MD)

3.  Eject button

4. 5.25" Bay

5. HDD LED

6.  Power switch & LED

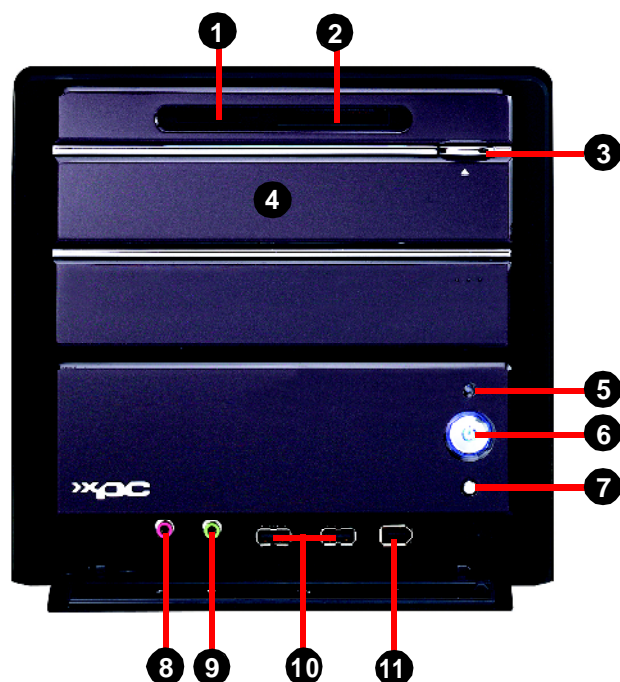
7. Reset

8.   Mic










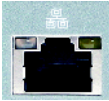

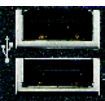


















9.   Headphone

10.   USB ports

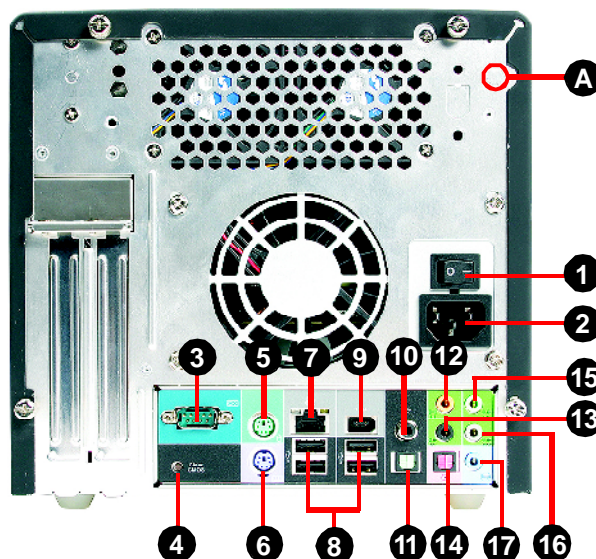
11.   FireWire® 400 mini port



■ 1.3.2 XPC Back

1. AC power switch
2. AC power socket
3.   COM port
4.   Clear CMOS button
5.   PS/2 Mouse
6.   PS/2 Keyboard
7.   LAN port
8.   USB ports
9.  1394  FireWire® 400 port
10.   SPDIF OUT (Coaxial)
11.   SPDIF OUT (Optical)
12.  C/B  Central/Bass
13.  SUR  Side Surr (R/L)
14.   SPDIF IN (Optical)
15.  L/R  Front OUT (R/L)
16.  SUR/B  Surround back (R/L)
17.   Line IN port

A. Wireless LAN perforation



■ 1.4 Accessories

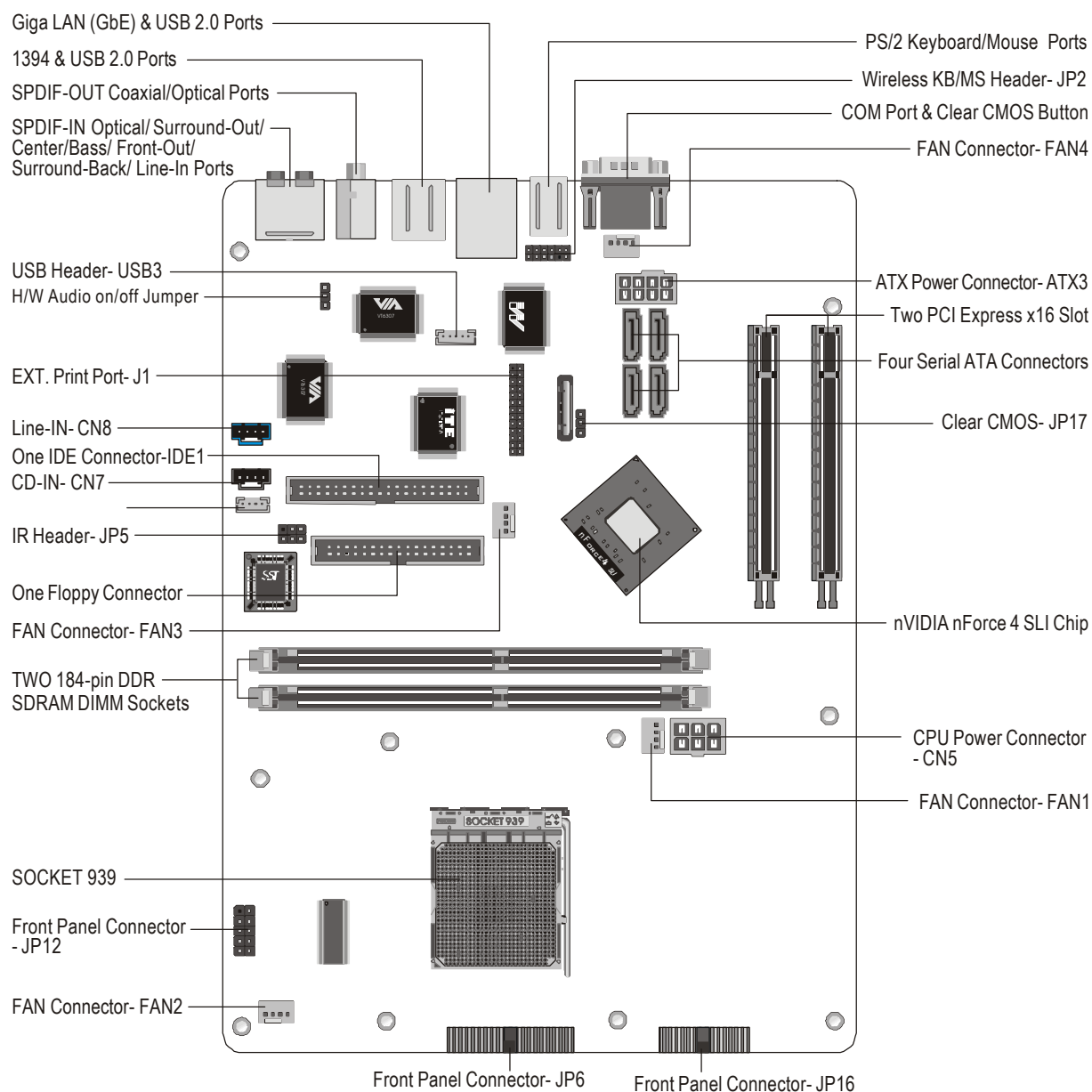
1. ICE Heat-Pipe (1)
2. Optical drive mounting brackets (2)
3. Cable tie (2)
4. HDD screws (6)
5. Front feet (2)
6. Power cord (1)
7. Cable clip (1)
8. Adhesive (1)
9. Shuttle Extras CD (1)
10. Motherboard CD Driver (1)
11. SLI bridge card (1)
12. Heatsink compound (1)
13. RAID Driver Floppy Disk (1)
14. XPC user guide (1)
15. RAID manual (1)



Note : Bundled Accessories may differ from specified. If there are items missing, please contact your local authorized Shuttle dealer.

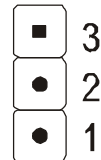
■ 1.5 XPC Mainboard

■ 1.5.1 SN26P mainboard illustration



■ 1.5.2 Jumper Settings

Several hardware adjustments are made by setting jumpers on the mainboard. To successfully change jumper settings, you will need to locate pin#1. In this manual, pin#1 is represented by a white square, other pins are represented by a circles. An illustration is shown below for your reference:



Jumpers with two pins are shown as  for Closed [On] or  for Open [Off]. To Short jumper pins, simply place a plastic jumper cap over the desired pair of pins.

Caution!

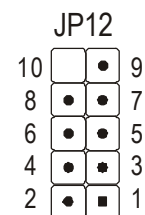
1. **Do not remove the mainboard from its case.**
2. **Do not touch the components on the mainboard. When installing components, pay special attention not to man handle sensitive components on the mainboard.**
3. **Wear an antistatic wrist strap or take other suitable measures to prevent electrostatic discharge (ESD) whenever handling this equipment or installing components.**

Front Panel Connector (JP12)

Header JP12 can be used to provide operation status signals to the front daughterboard. Note that this is an alternative header to the 50pin streamline header that also connects the motherboard to the front daughterboard.

Pin Assignments (JP12):

1 = HDLED_PU	2 = GLEDA
3 = HDLED	4 = GLEDB
5 = Reset_SW	6 = Power_SW
7 = GND	8 = GND
9 = NC	10 = KEY



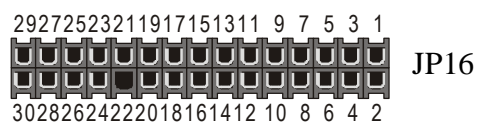
Front Panel AUDIO/ USB/ 1394 Connector (JP6/JP16)

Headers JP6 and JP16 are used to connect cables to front panel connectors mounted on front-panel or back-panel. The front panel is where the hard drive activity lights, reset button, on/off button, computer power on light, USB connectors, 1394 connectors, and audio headers, are located.



Pin Assignments (JP6):

1=N/C	21=AC97_CLK
2=N/C	22=KEY
3=N/C	23=-AC_RST
4=N/C	24=GPIO
5=N/C	25=AC_SUMC
6=N/C	26=AC_SDIN
7=N/C	27=AC_SDOUT
8=N/C	28=AC_BITCLK
9=N/C	29=KEY
10=GND	30=AUDIO GND
11=N/C	31=AUDIO GND
12=RST_SW	32=FRONT_R
13=FPGND	33=FRONT_OUT_R
14=HDLED	34=FRONT_L
15=PW_SW	35=FRONT_OUT_L
16=HDPU	36=AUDIO GND
17=GLEDB	37=NC
18=VCC3	38=AUDIO GND
19=GLEDA	39=NC
20=+12V	40=MIC

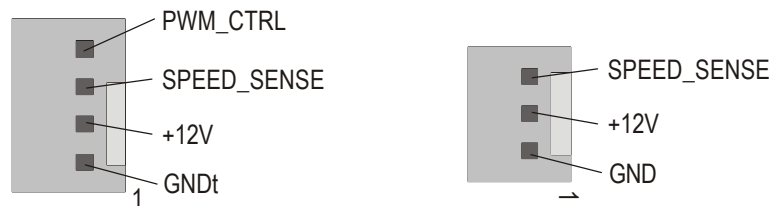


Pin Assignments (JP16):

1=USBPWR	16=USB4+
2=USBPWR	17=USBGD
3=USBPWR	18=USBGD
4=USBPWR	19=USB5-
5=USBGD	20=USBGD
6=USBGD	21=USB5+
7=USB1-	22=KEY
8=USB2-	23=1394GND
9=USB1+	24=1394GND
10=USS2+	25=TPA+
11=USBGD	26=TPB+
12=USBGD	27=TPA-
13=USB3-	28=TPB-
14=USB4-	29=1394PWR
15=USB3+	30=1394GD

Fan Connectors (FAN1/FAN2/FAN3/FAN4)

The mainboard provides four onboard 12V cooling fan power connectors to support CPU_In (FAN1), CPU_Out (FAN2), chipset (FAN3), Reserved (FAN4) fans.



Note : Both cable wiring and type of plug may vary depending on the fan maker.

LINE-IN (CN8)(Blue), CD-IN (CN7)(Black), mini CD-IN (CN6)(White) Connectors

Port CN8(Blue), CN7(Black) and CN6(White) are used to connect stereo audio inputs from a CD-ROM.

Pin Assignments (CN8):

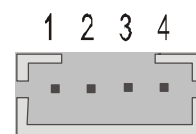
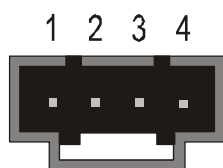
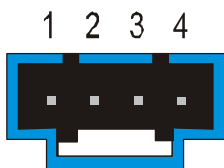
1 = Line-IN-Left
2 = Ground
3 = Ground
4 = Line-IN-Right

Pin Assignments (CN7):

1 = CD-IN-Left
2 = Ground
3 = Ground
4 = CD-IN-Right

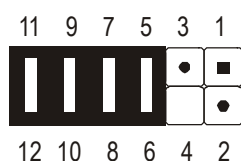
Pin Assignments (CN6):

1 = Ground
2 = CD-IN-Right
3 = Ground
4 = CD-IN-Left



Wireless Keyboard and Mouse Connectors (JP2)

JP2 header provides support for a wireless keyboard and mouse. The four mini Jumpers must be set on the 5-6, 7-8, 9-10 pins and 11-12 pins when this header is not in use.



Pin Assignments (JP2):

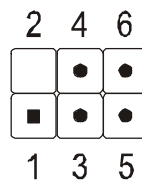
1 = VCC	2 = VCC
3 = GND	4 = KEY
5 = MSCLK	6 = MS_CK
7 = MSDATA	8 = MS_DK
9 = KBCLK	10 = KB_CK
11 = KBDATA	12 = KB_DK

IR Header (JP5)

If you have an Infrared device, this mainboard can implement IR transfer function. To enable the IR transfer function, follow these steps:

Pin Assignments (JP5):

- 1=NC
- 2=KEY
- 3=VCC
- 4=GND
- 5=IrTx
- 6=IrRx

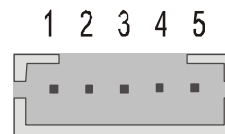


USB Header (USB3)

The header is used to connect auxiliary USB devices to the mainboard. The header is directional and will only allow USB cables to be connected in one direction.

Pin Assignments (USB3):

1 = GND
2 = GND
3 = USB +
4 = USB -
5 = 5VSB



Parallel Port Header-EXT. Printer Port (J1)

A DB25 male parallel port header is located near the rear panel of the mainboard. The header is used to connect a parallel port socket (PC15) to the mainboard. The parallel printer port can be purchased from Shuttle as an optional accessory.

26		•	13
25	•	•	12
24	•	•	11
23	•	•	10
22	•	•	9
21	•	•	8
20	•	•	7
19	•	•	6
18	•	•	5
17	•	•	4
16	•	•	3
15	•	•	2
14	•	■	1

Pin Assignments (J1):

1 = PSTB	2 = PD0	3 = PD1
4 = PD2	5 = PD3	6 = PD4
7 = PD5	8 = PD6	9 = PD7
10 = P_-ACK	11 = P_-BUSY	12 = P_-PE
13 = P_-SLCT	14 = PAUTOFD	15 = P_-ERR
16 = PINIT	17 = PSLCTIN	18 = GND
19 = GND	20 = GND	21 = GND
22 = GND	23 = GND	24 = GND
25 = GND	26 = KEY	

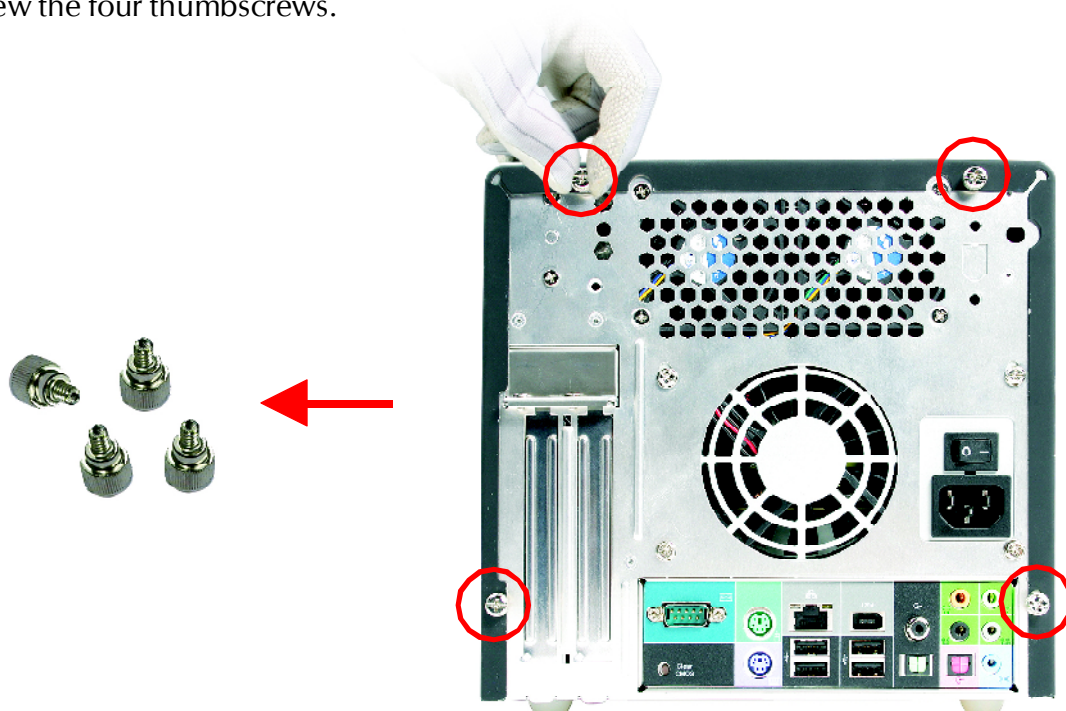
2 XPC Installation Guide

■ 2.1 Installation

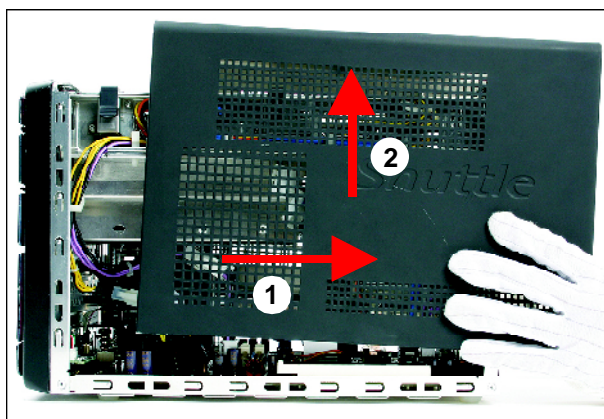
Note : For safety reasons, please ensure that the power cord is disconnected before opening the case.

■ 2.1.1 Remove the Cover

1. Unscrew the four thumbscrews.

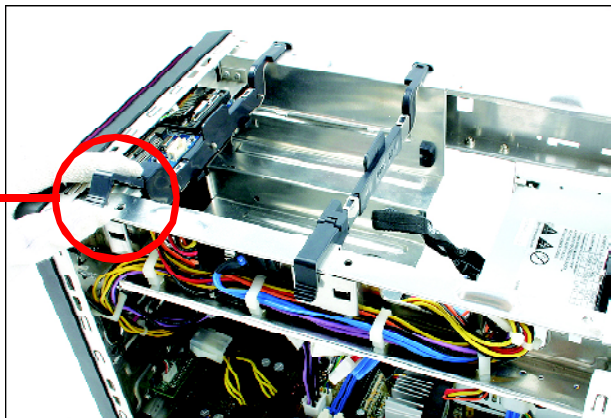
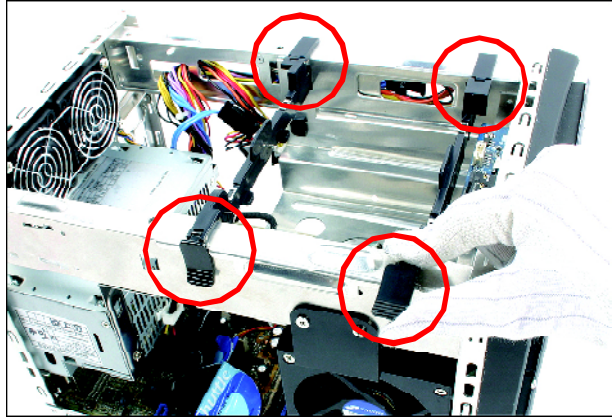


2. Slide the cover backwards and upwards.



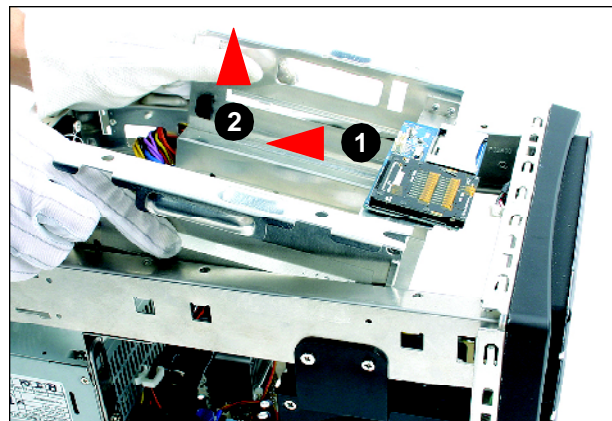
■ 2.1.2 Remove the Rack

1. Unbuckle the two Serial ATA HDD mounting brackets from the rack.



Serial ATA HDD mounting brackets

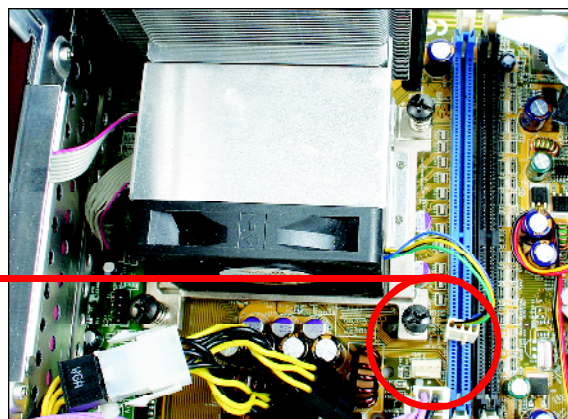
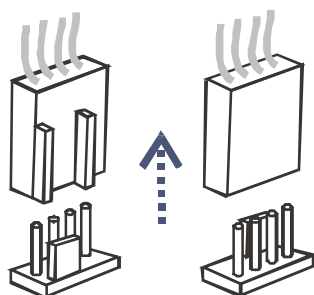
2. Remove the rack.



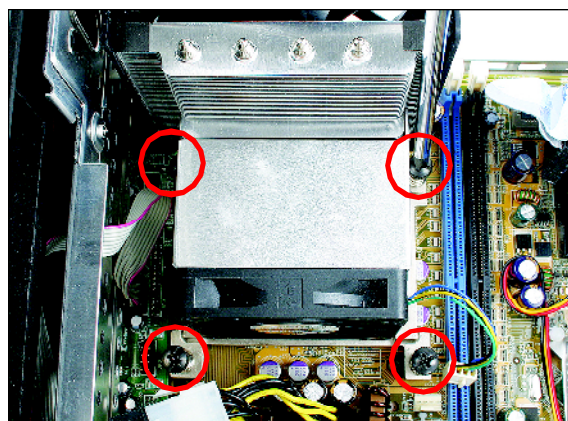
■ 2.2 CPU, DDR and ICE Installation

■ 2.2.1 Remove the ICE Module

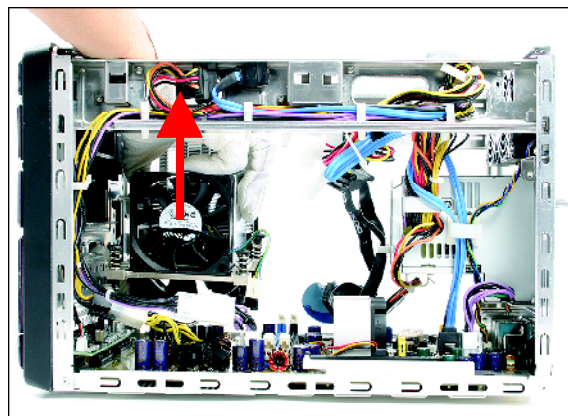
1. Unplug the fan power connector.

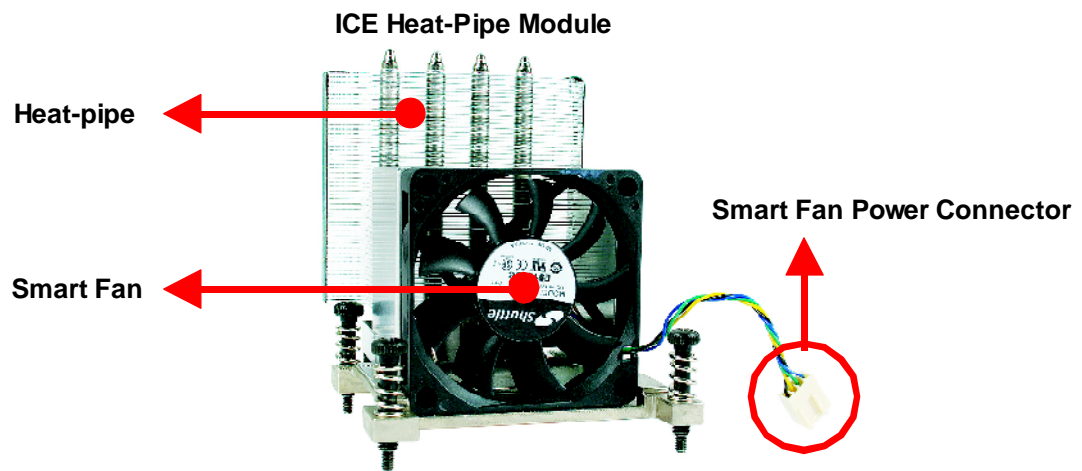


2. Unfasten the four ICE module attachment screws.



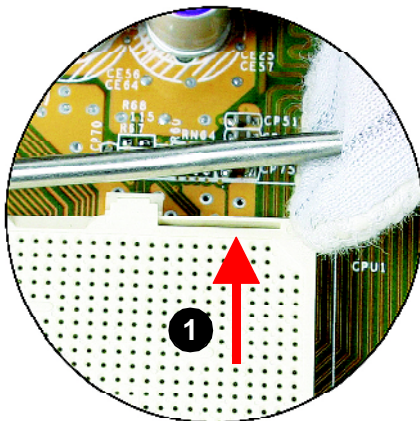
3. Remove the ICE module from the chassis and put it aside.



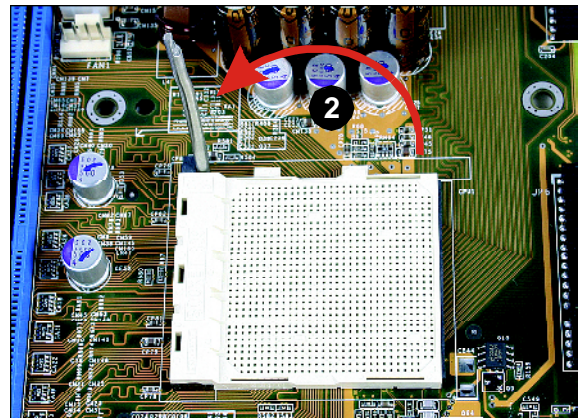


■ 2.2.2 Install the CPU

1. Pull up the CPU socket lever to 90-degrees.

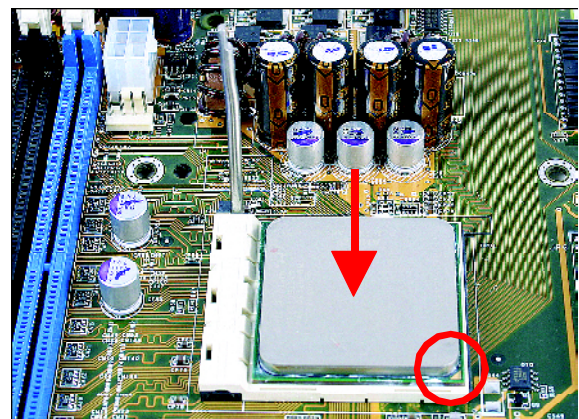


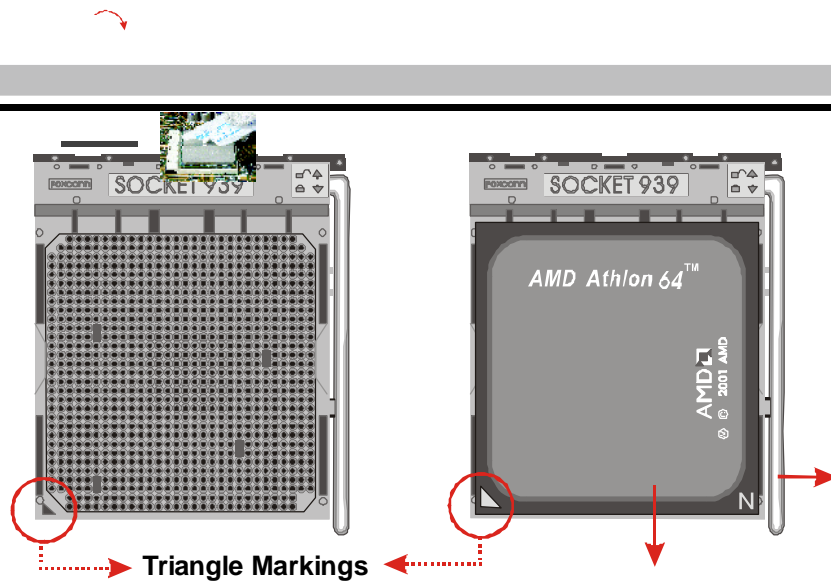
Push the lever



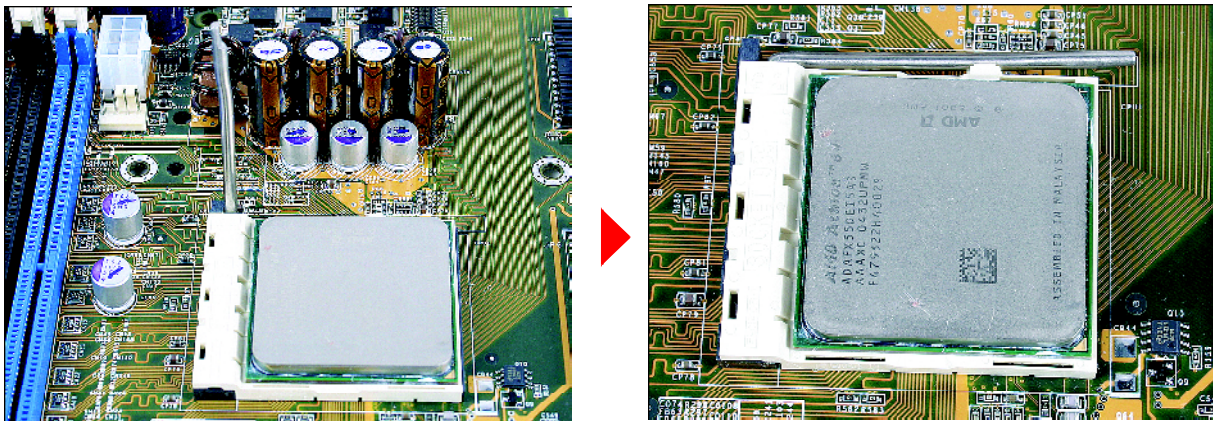
CPU socket lever at 90 degrees

2. Match the yellow triangle on a corner of the CPU with the triangle on the socket corner and gently insert the CPU into the socket.



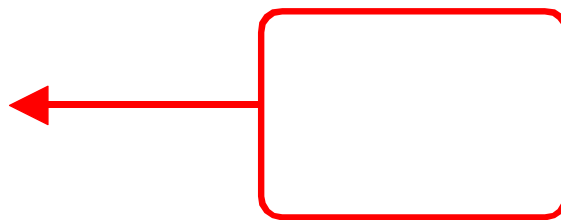


3. Press down the CPU socket lever.



Note : Failure to correctly align the CPU and socket can result in damage to the CPU.

4. Spread an even layer of thermal compound on the CPU die.



■ 2.2.3 DDR Installation

Memory Configuration : Install memory in any or all of the banks according to the combinations shown below.

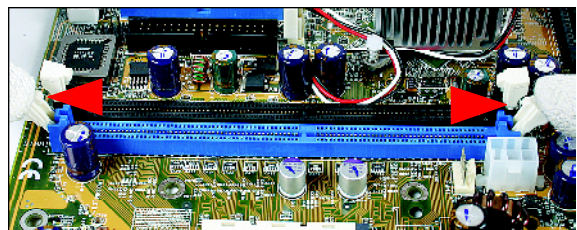
TOTAL 2 DIMM in Single or Dual Channel Mode up to 2GB and 1GB per DIMM						
Density	256 Mbit		512 Mbit		1024 Mbit	
Device Width	X8	X16	X8	X16	X8	X16
Single Side	256MB	128MB	512MB	256MB	1024MB	512MB
Double Side	512MB	N/A	1024MB	N/A	N/A	N/A

- Note :**
1. *Maximum installable memory is 2GB.*
 2. *Double-side X16 DDR-SDRAM chips are not supported.*
 3. *Registered DIMMs are not supported.*
 4. *Only unbuffered without ECC DIMM are supported.*
 5. *Does not support X4 DDR-SDRAM.*

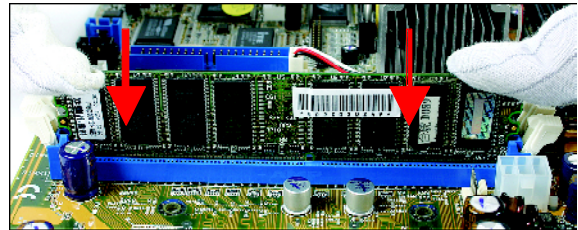
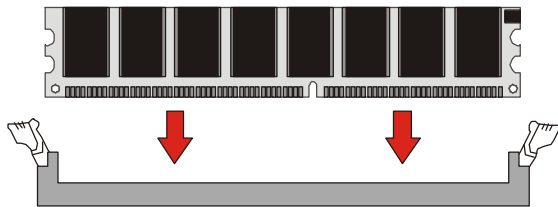
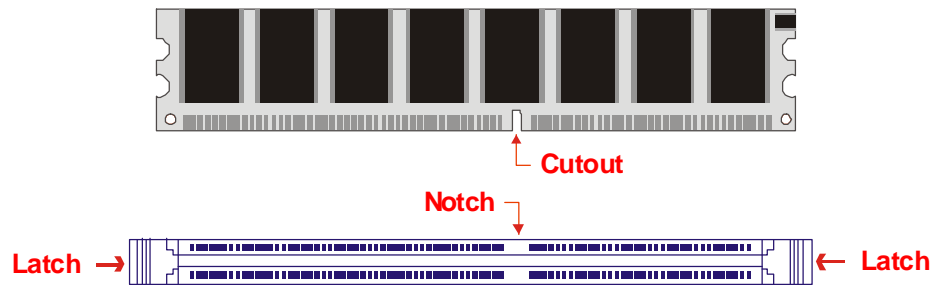
Note : No jumper settings are required to configure memory.
The system BIOS utility automatically detects the memory settings.
Check the total installed system memory value in the BIOS menu.

Install a DDR module in DIMM1/DIMM2.

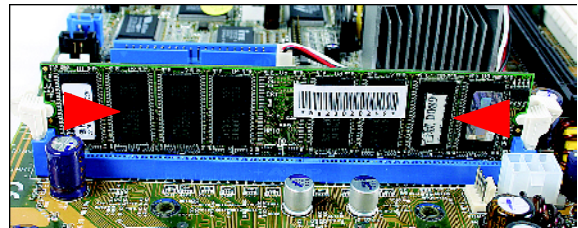
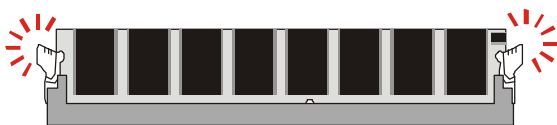
1. Unlock the DIMM latch.



- Align the DDR module's cutout with the DIMM slot notch.
Insert the DDR module into the DIMM1 slot (blue) first.
If you have only one DIMM, it must be installed in the blue slot.



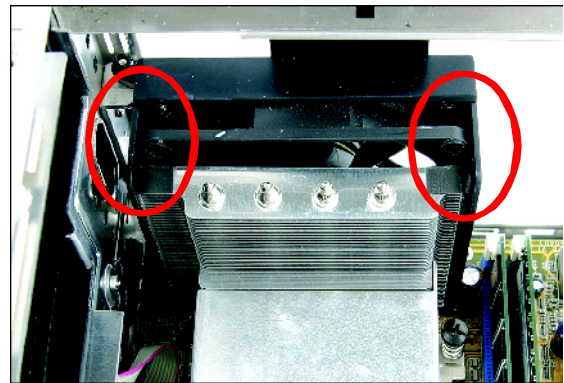
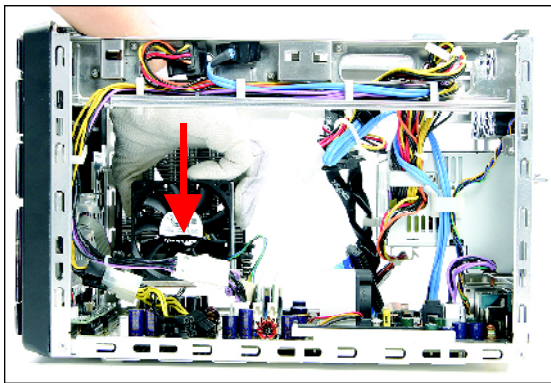
- Check that the latches are closed, and the DDR module is firmly installed.



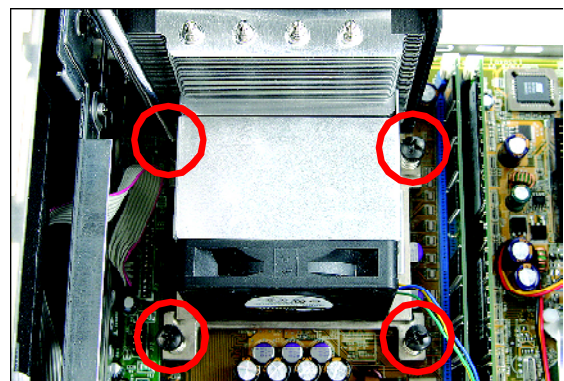
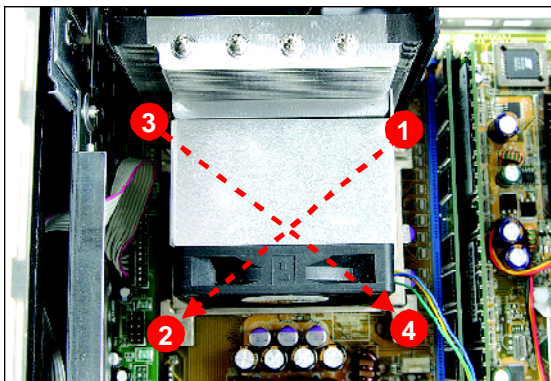
Note : Repeat to install a second DDR module if desired.

■ 2.2.4 Install the ICE Module

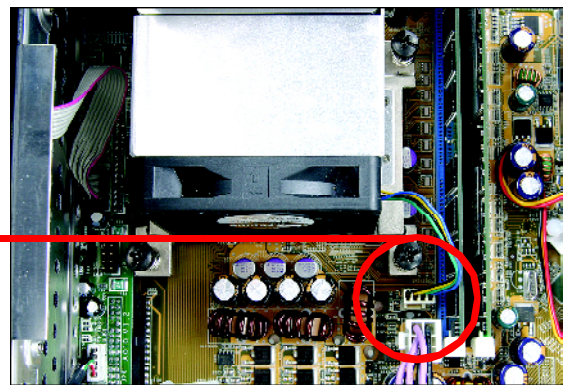
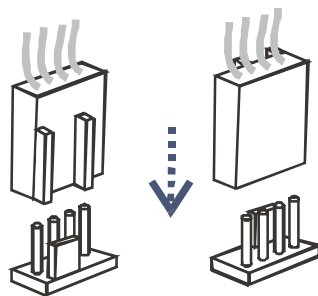
1. Place the ICE module on top of the CPU die and match the screws with the holes on the motherboard.



2. Screw the ICE module to the motherboard. Note to press down on the opposite diagonal corner while tightening each screw.



3. Connect the fan's power connector.



■ 2.3 Peripheral Installation

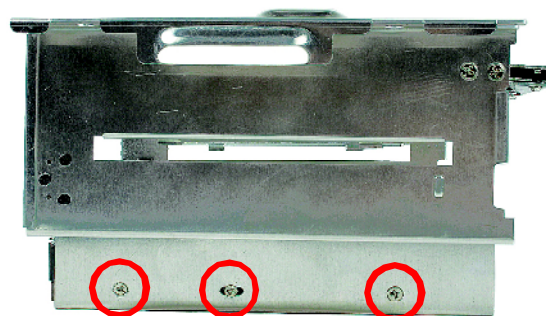
Note : The rack is designed for one 3.5" serial ATA hard drive only.

■ 2.3.1 Instal the serial ATA HDD

1. Place the HDD in the rack and secure with screws from the side.



Note : Secure with two screws on each side.



■ 2.3.2 Optical Drive Rack Mounting

1. Take the two optical drive mounting brackets.



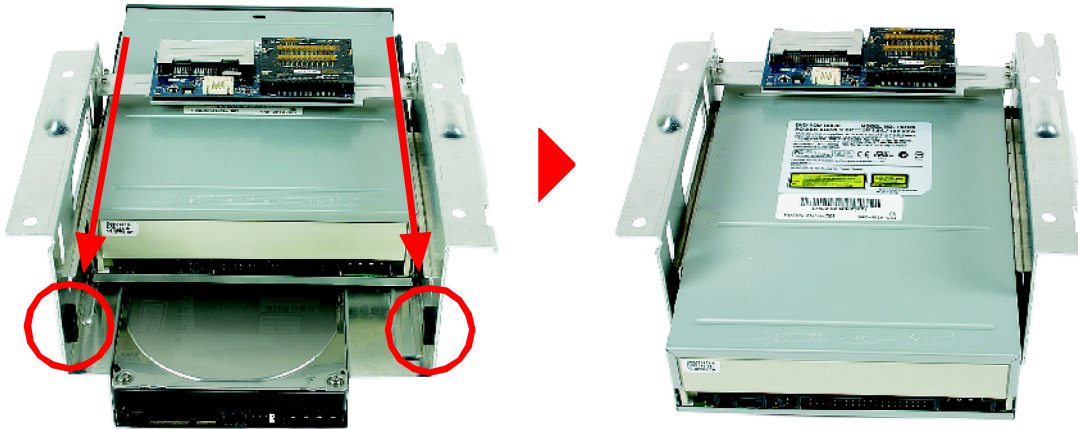
2. Align the pins on the mounting brackets with the holes on the optical drive and attach.

Note : The mounting brackets are side specific.



Optical drive mounting brackets

- Slide the optical drive into the rack until the ends of the brackets are secured in the rack as shown.

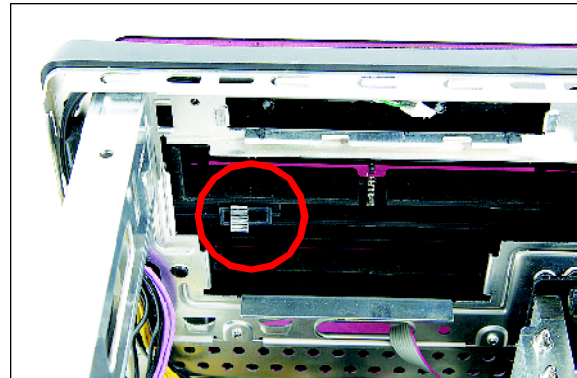


■ 2.3.3 Install the Rack Peripherals

- Looking at the inside of the stealth drive door, check the alignment of the drive's eject button with this XPC's drive eject mechanism. Adjust the internal control rod to match the position of the optical drive's eject button.



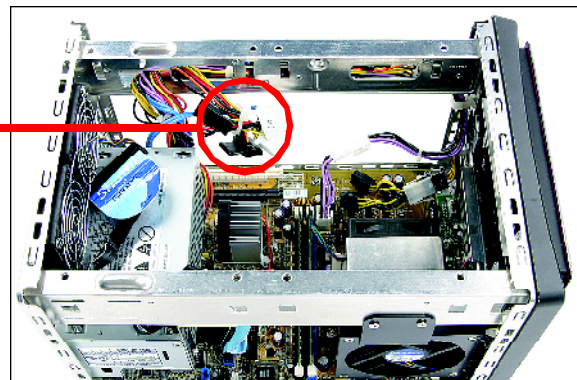
Optical drive's eject button



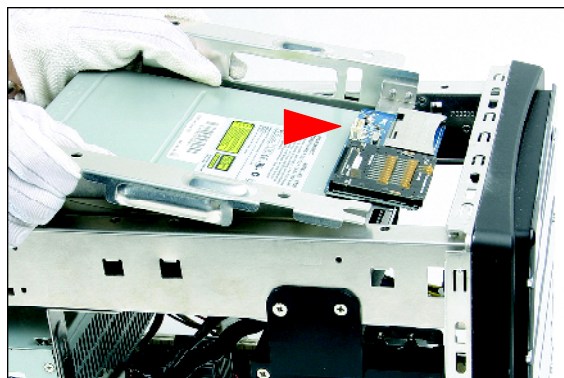
XPC's drive eject mechanism

- Loosen the purse lock.

Purse lock

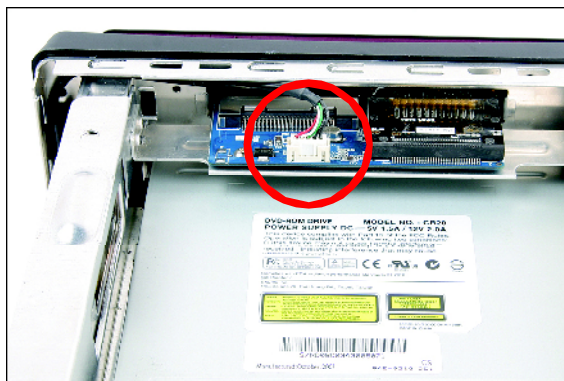


3. Place the rack in the chassis.

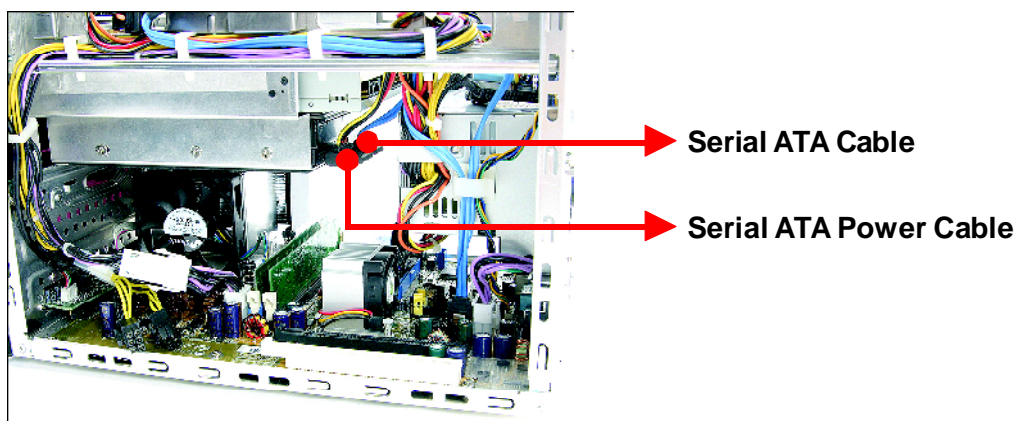


Note: Move the card reader's signal cable so as to not crimp it during this process.

4. Connect the card reader's signal cable.

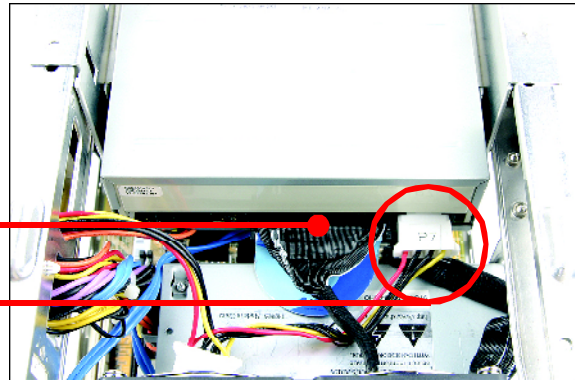


5. Connect the Serial ATA and power cables to the HDD.



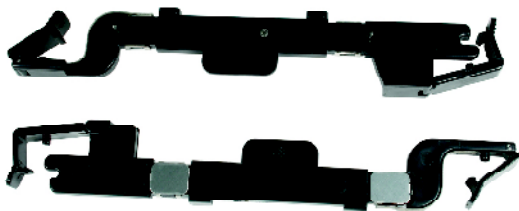
6. Plug the optical drive cable and power cable into the optical drive.

Optical Drive Cable
Optical Drive Power Cable

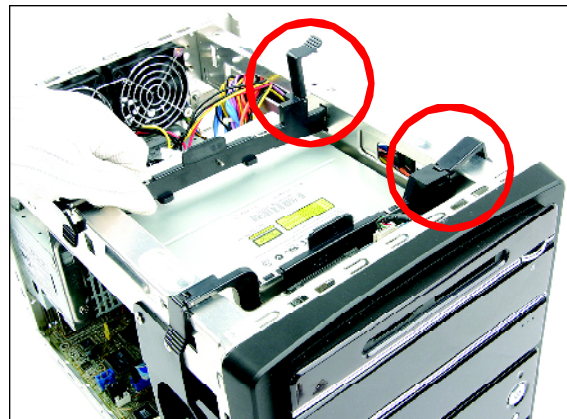


Note : If you are not installing more Serial ATA HDDs, proceed to step 7.
If you are installing more Serial ATA HDDs, proceed to 2.3.4.

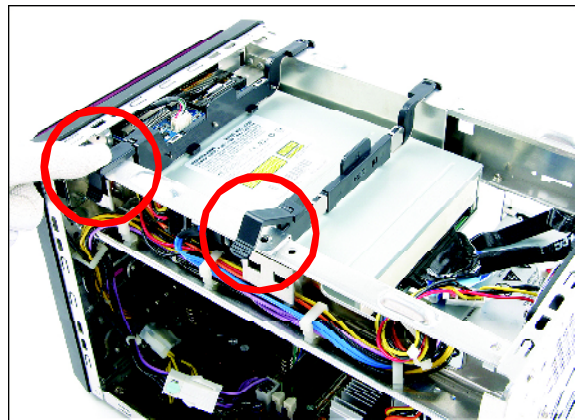
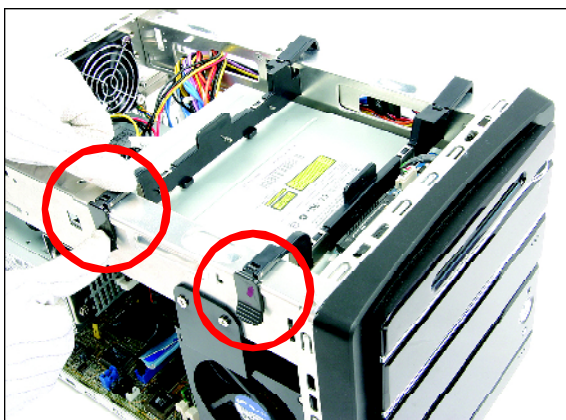
7. Take the two Serial ATA HDD mounting brackets and insert the tips of the brackets into the attachment clips on the chassis rail.



Serial ATA HDD mounting brackets



8. Buckle the two Serial ATA HDD mounting brackets into position.



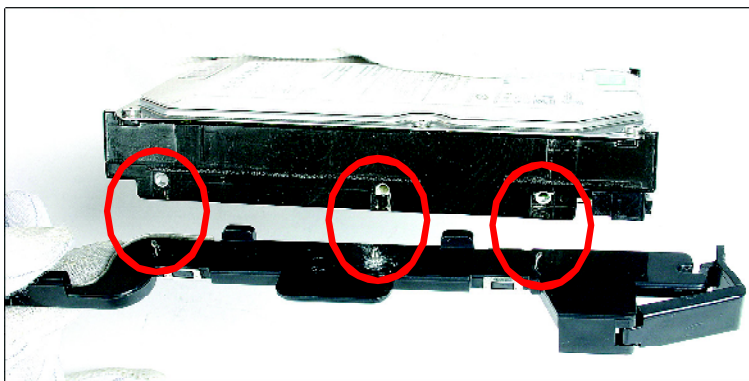
■ 2.3.4 Install more Serial ATA HDDs

1. Take two HDD mounting brackets.



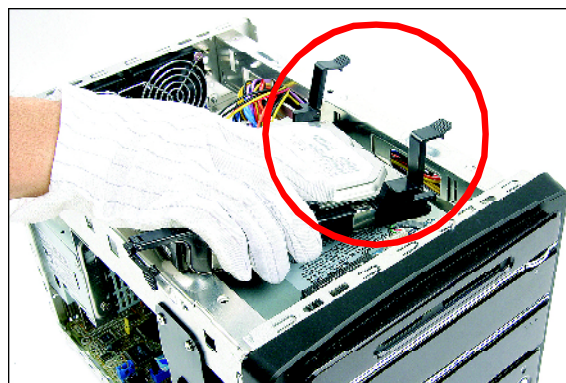
Serial ATA HDD mounting brackets

2. Align the pins on the mounting brackets with the holes on the HDD and attach.

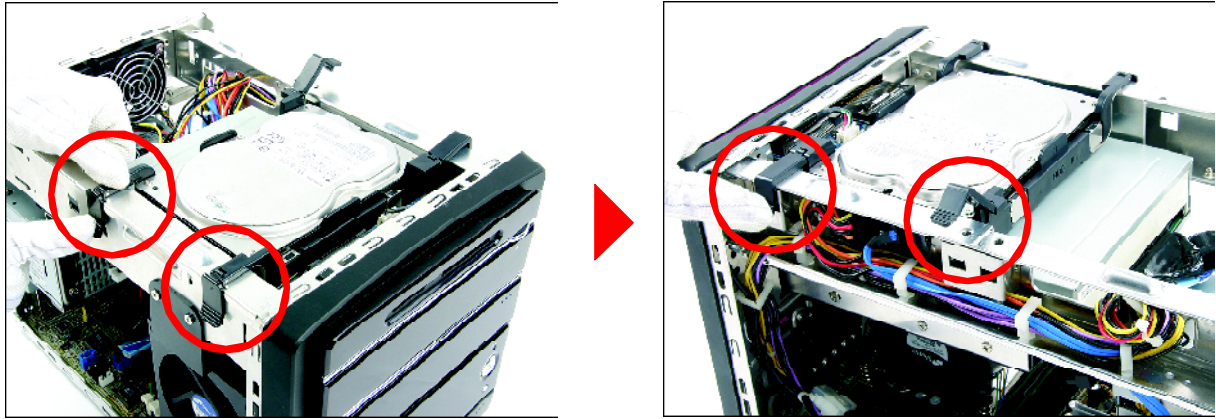


Note : The mounting brackets are side specific.

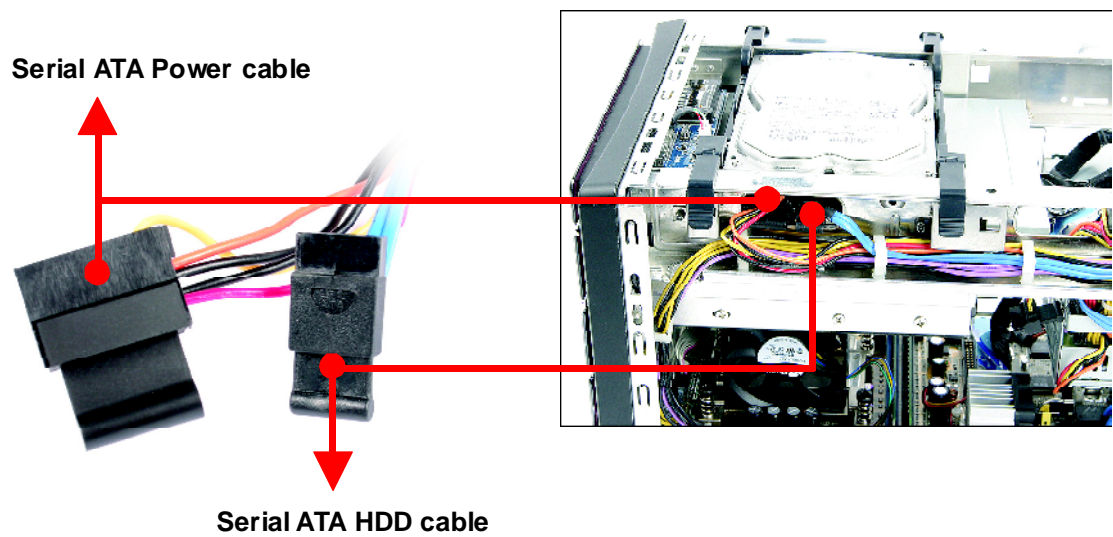
3. Holding the bracketed HDD above the chassis insert the tips of the brackets into the attachment clips on the chassis rail as shown below.



4. Buckle the HDD into position.



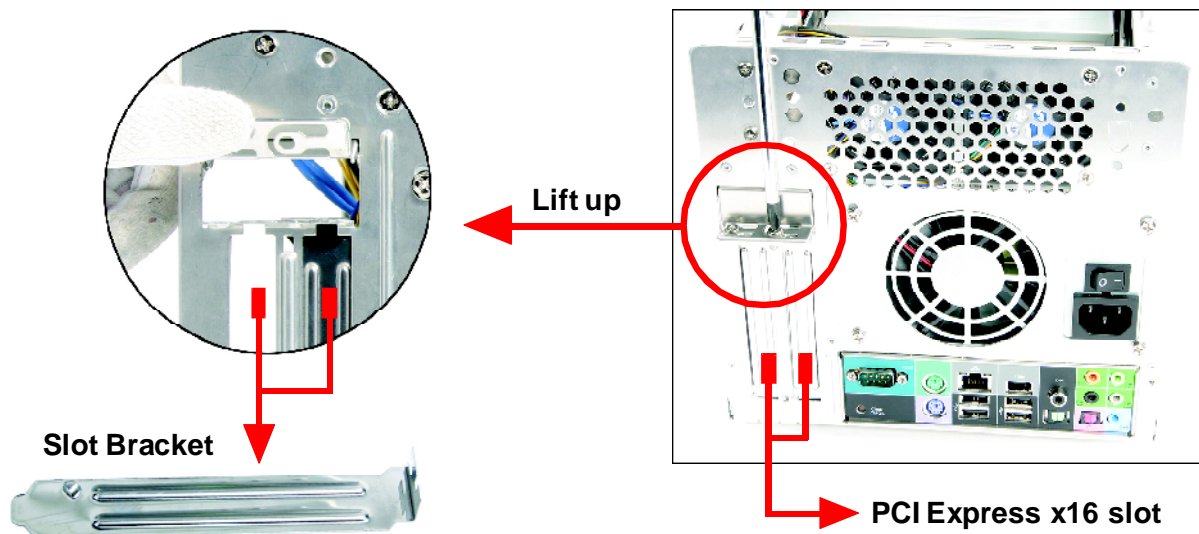
5. Connect the Serial ATA signal and power cable to the HDD.



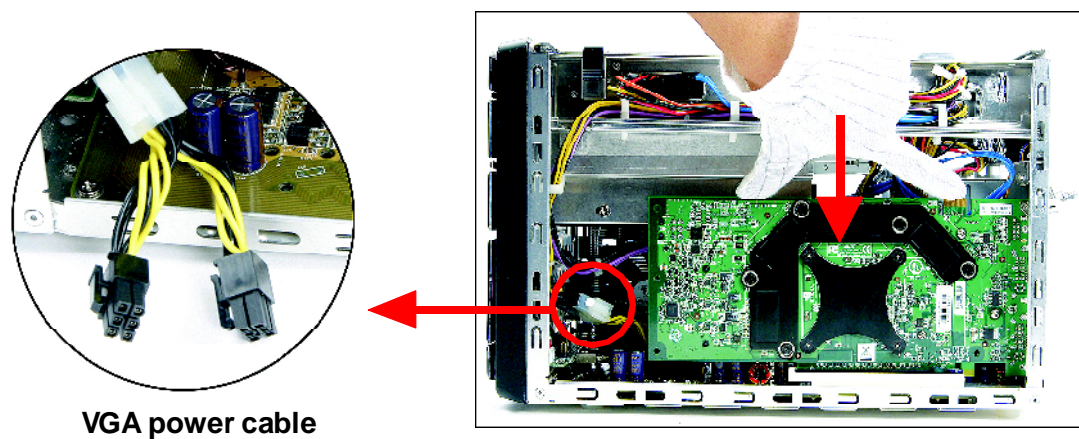
■ 2.4 Accessories Installation

■ 2.4.1 Install PCI Express x16 Card

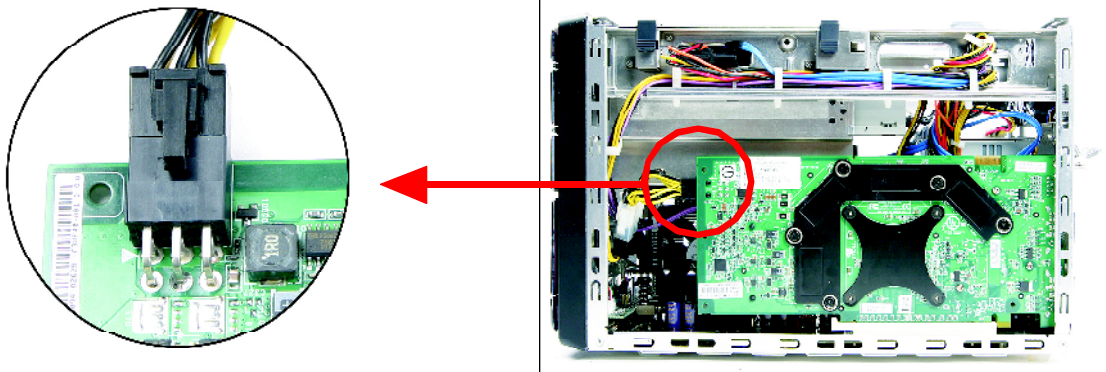
1. A PCI Express x16 card will be used to demonstrate this installation procedure. Unfasten the expansion slot bracket screws and remove the back panel bracket. Put the brackets aside.



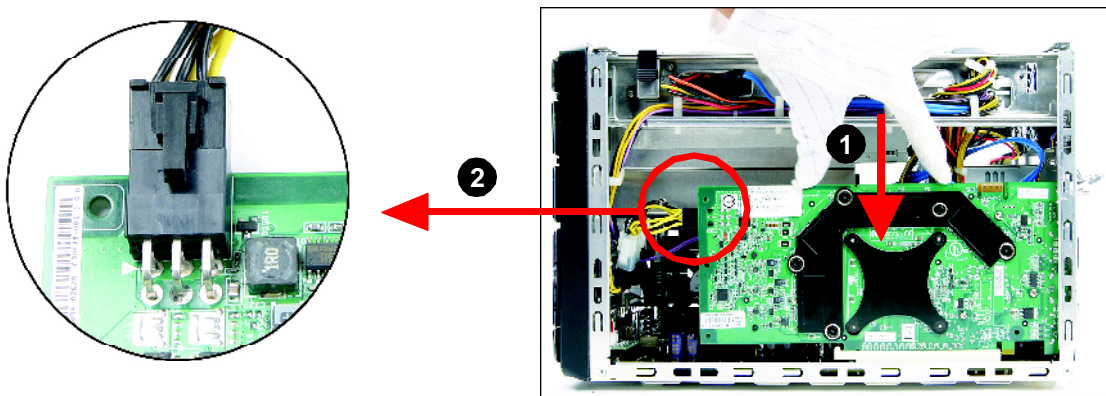
2. As shown Install the PCI Express x16 card into the PCI Express x16 slot.



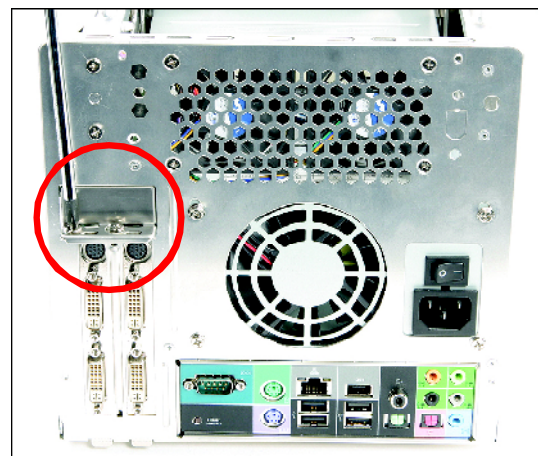
3. Connect the VGA power cable as shown below.



4. Repeat to install a second PCI Express x16 card as shown below.



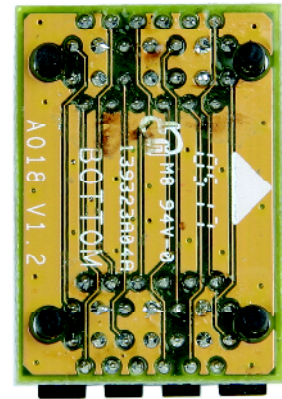
5. Secure the bracket.



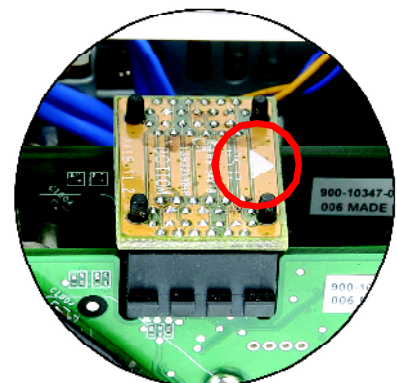
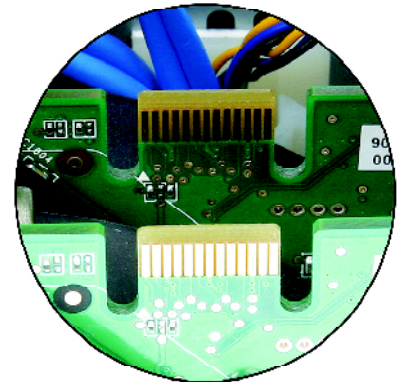
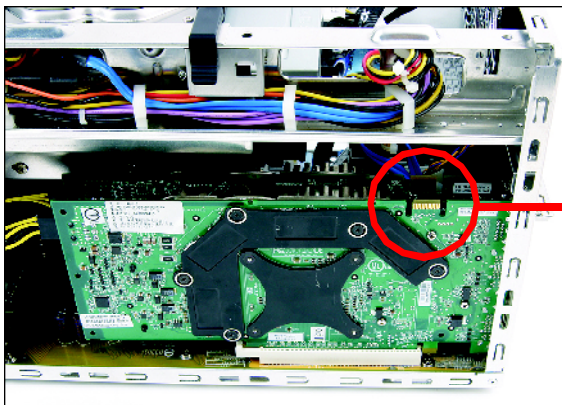
Note : Refer to section 2.4.2 if you are installing two PCI Express x16 Cards.

■ 2.4.2 Install SLI bridge card

1. Take out the SLI bridge card from the accessory box.



2. Install the SLI bridge card as shown below.

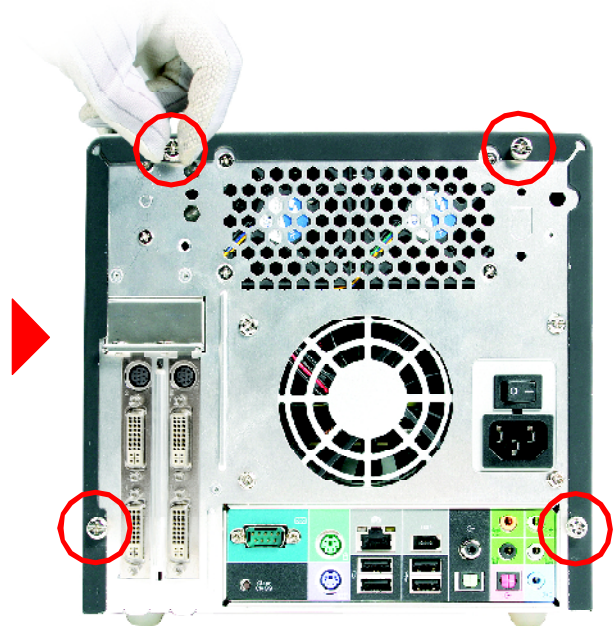
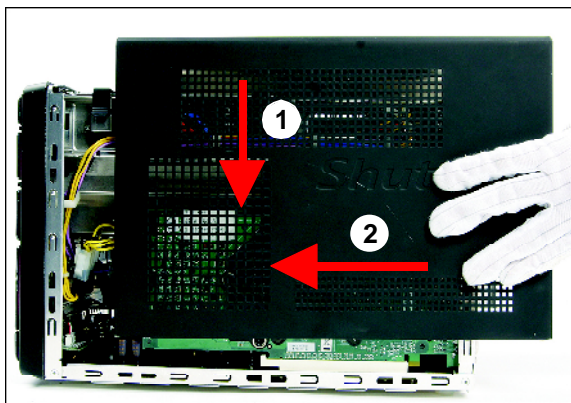


Note : SLI technology (Scalable Link Interface) could support 2 PCI Express x16 cards and be operated parallel at the same time. It provides much higher performance efficiency.

■ 2.5 Final Touches

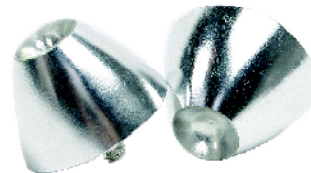
■ 2.5.1 Close the Chassis Cover

1. Replace the cover and refasten the thumbscrews.



■ 2.5.2 Install Front Feet

1. Take out the two front feet from the accessory box.



Front feet

2. Screw the front feet to the base of the chassis.



■ 2.5.3 Complete



■ 2.6 XPC Accessories

Shuttle offers over 25 great upgrade and modding kits for your XPC. Visit our website at <http://www.shuttle.com> for more information or speak to your local retailer.

■ 2.7 Tech Support

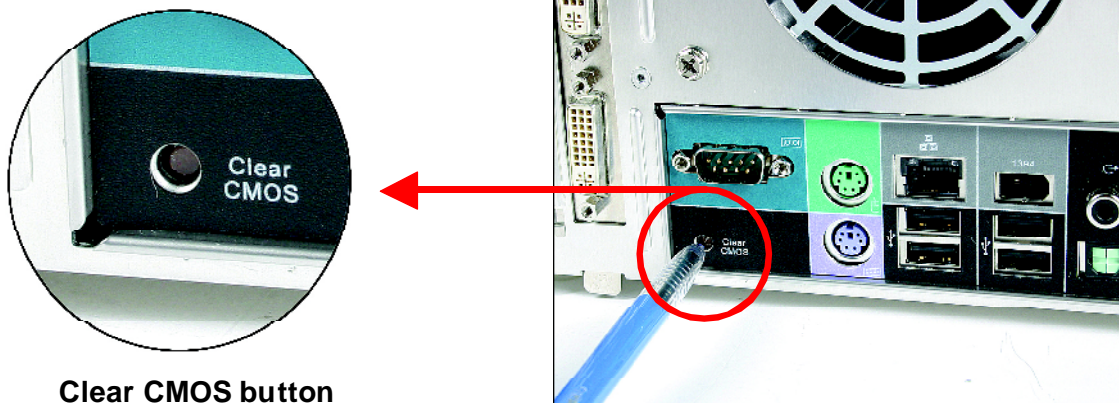
1. Shuttle Inc.
<http://www.shuttle.com>
2. Tech Support
<http://global.shuttle.com/Support/Support.asp>
3. Download
<http://global.shuttle.com/Download/Download.asp>
4. Barebone FAQ
http://global.shuttle.com/Support/SupportFAQ_Brb.asp
5. Barebone Support List
http://global.shuttle.com/Support/SupportList_Brb.asp

■ 2.8 Technical Notes

■ 2.8.1 Clear CMOS Button

This XPC comes enhanced with an easy-to-use Clear CMOS Button. This button allows users to reset BIOS information to factory default settings.

1. Power down the XPC and remove the power cord.
2. Press the Clear CMOS Button by inserting a pointed object (e.g. a pen nib) into the clear CMOS hole. Keep it pressed for 5 seconds.
3. Reconnect the power cord and turn on the computer.



Clear CMOS button

Note : Remove the power cord before clearing CMOS.

3 Driver and Software Installation

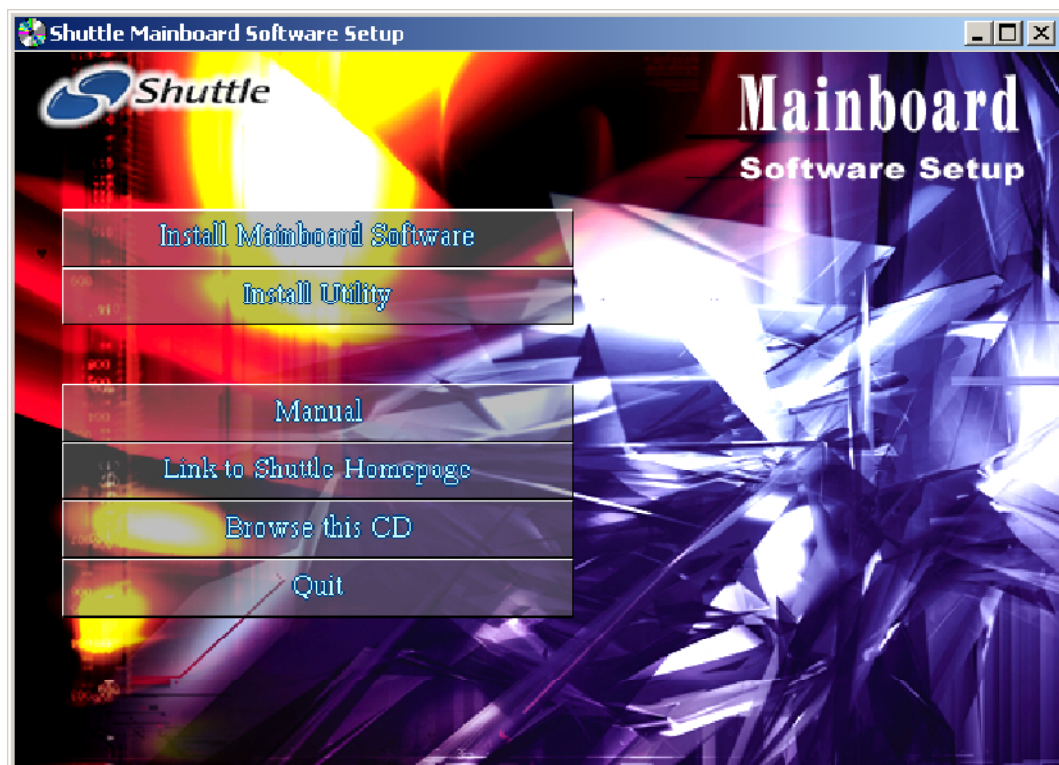
■ 3.1 Mainboard Driver CD

Note : The CD contents attached in SN26P mainboard are subject to change without notice.

The Mainboard Driver CD contains all the motherboard driver necessary to optimize the performance of this XPC in a Windows(R) OS. Install these drivers after installing Microsoft(R) Windows(R).

Navigation Bar Description :

- ☞ **Install Mainboard Software** - DirectX9 Utility, nVIDIA Chipset Driver, VIA Audio Driver, nVIDIA USB 2.0 Driver.
- ☞ **Install Utility** - Install Acrobat Reader, WinFlash Utility.
- ☞ **Manual** - SN26P user's guide and nVIDIA manual in PDF format.
- ☞ **Link to Shuttle Homepage** - Link to shuttle website homepage.
- ☞ **Browse this CD** - Allows you to see contents of this CD.
- ☞ **Quit** - Close this CD.



■ 3.1.1 Install Mainboard Software

Insert the attached CD into your CD-ROM drive. The CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in **My Computer** to bring up **Shuttle Mainboard Software Setup** screen.

Click the “**Install Main-board Software**” bar. Individually install the following drivers.

- ☞ **Install DirectX9 Utility**
- ☞ **Install nVIDIA Chipset Driver**
- ☞ **Install VIA Audio Driver**
- ☞ **Install nVIDIA USB 2.0 Driver**



BIOS Settings

The SN26P BIOS ROM has a built-in Setup program that allows users to modify basic system configuration. This information is stored in battery-backed RAM so that it retains Setup information even if the system power is turned off.

The system BIOS manages and executes a variety of hardware related functions including:

System date and time

Hardware execution sequence

Power management functions

Allocation of system resources

Enter the BIOS

To enter the BIOS (Basic Input / Output System) utility, follow these steps:

- Step1.** Power on the computer. The system will perform its POST (Power-On Self Test) routine checks.
- Step2.** Press the key immediately, or at the following message:
Press DEL to enter SETUP, or simultaneously press <Ctrl>, <Alt>, <Esc> keys

Note 1. If you miss the train of words mentioned in step2 (the message disappears before you can respond) and you still wish to enter BIOS Setup, restart the system and try again by turning the computer OFF and ON again or by pressing the <RESET> switch located at the computer's front-panel. You may also reboot by simultaneously pressing the <Ctrl>, <Alt>, keys simultaneously.

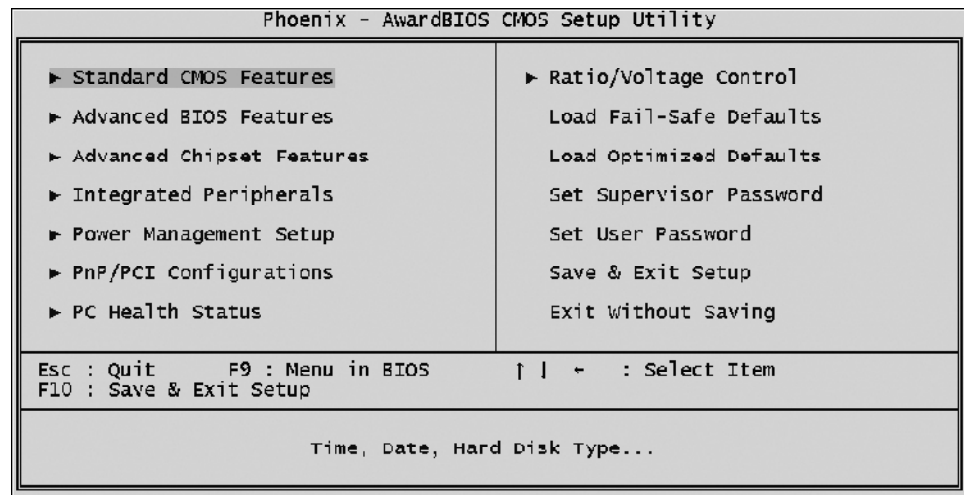
Note 2. If you do not press the keys in time and system does not boot, the screen will prompt an error message, and you will be given the following options:

"Press F1 to Continue, DEL to Enter Setup"

- Step3.** When you enter the BIOS program, the CMOS Setup Utility will display the Main Menu, as shown in the next section.

The Main Menu

Once you enter the AwardBIOS(tm) CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.



Note that a brief description of each highlighted selection appears at the bottom of the screen.

Setup Items

The main menu includes the following main setup categories. Recall that some systems may not include all entries.

Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

Use this menu to set the Advanced Features available on your system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management Setup

Use this menu to specify your power management settings.

PnP / PCI Configurations

This entry appears if your system supports PnP / PCI.

PC Health Status

This entry displays the current system temperature, Voltage, and FAN settings.

Ratio/Voltage Control

Use this menu to specify your settings for ratio control.

Load Fail-Safe Defaults

Use this menu to load the BIOS default values for the minimal/stable performance of your system to operate.

Load Optimized Defaults

Use this menu to load the BIOS default values that are factory-set for optimal system operation. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet users' needs.

Set Supervisor / User Password

Use this menu to change, set, or disable password protection. This allows you to limit access to the system and Setup, or only to Setup.

Save & Exit Setup

Save CMOS value changes in CMOS and exit from setup.

Exit Without Saving

Abandon all CMOS value changes and exit from setup.



Standard CMOS Features

The items in the Standard CMOS Setup Menu are divided into several categories. Each category includes none, 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.

Phoenix - AwardBIOS CMOS Setup Utility		Item Help
Standard CMOS Features		
Date (mm:dd:yy)	Tue, May 12 2099	Menu Level ▶ Change the day, month, year and century
Time (hh:mm:ss)	10 : 9 : 56	
▶ IDE Channel 0 Master		
▶ IDE Channel 0 Slave		
Drive A	[1.44M, 3.5 in.]	
Video	[EGA/VGA]	
Halt on	[All, But Keyboard]	
Base Memory	640K	
Extended Memory	65472K	
Total Memory	1024K	
[↑:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

Date

<Month> <DD> <YYYY>

Set the system date. Note that the 'Day' automatically changes when you set the date.

Time

<HH : MM : SS>

The time is converted based on the 24-hour military-time clock.
For example, 5 p.m. is 17:00:00.

IDE Channel 0 Master/Slave

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

Drive A

Select the type of floppy disk drive installed in your system.

- The choice: None, 360K, 5.25 in, 1.2M, 5.25 in, 720K, 3.5 in, 1.44M, 3.5 in, or 2.88M, 3.5 in.

Video

Select the default video device.

- The choice: EGA/VGA, CGA 40, CGA 80, or MONO.

Halt On

Select the situation in which you want the BIOS to stop the POST process and notify you.

- The choice: All Errors, No Errors, All, But Keyboard, All, But Diskette, or All, But Disk/Key.

Base/Extended/Total Memory

These items are automatically detected by the system at start up time. These are display-only fields. You can't make change to these fields.

IDE Adapters

The IDE adapters control the hard disk drive. Use a separate sub-menu to configure each hard disk drive.

IDE HDD Auto-Detection

Press <Enter> to auto-detect HDD on this channel. If detection is successful, it fills the remaining fields on this menu.

- Press Enter

IDE Channel 0 Master

Selecting 'manual' lets you set the remaining fields on this screen and select the type of fixed disk. "User Type" will let you select the number of cylinders, heads, etc., Note: PRECOMP=65535 means NONE !

- The choice: None, Auto, or Manual.

Access Mode

Choose the access mode for this hard disk.

- The choice: CHS, LBA, Large, or Auto.

Capacity

Disk drive capacity (Approximated). Note that this size is usually slightly greater than the size of a formatted disk given by a disk checking program.

- Auto-Display your disk drive size.

The following options are selectable only if the 'IDE Primary Master' item is set to 'Manual'

Cylinder

Set the number of cylinders for this hard disk.

- Min = 0, Max = 65535

Head

Set the number of read/write heads.

- Min = 0, Max = 255

Precomp

Warning: Setting a value of 65535 means no hard disk.

- Min = 0, Max = 65535

Landing zone

Set the Landing zone size.

- Min = 0, Max = 65535

Sector

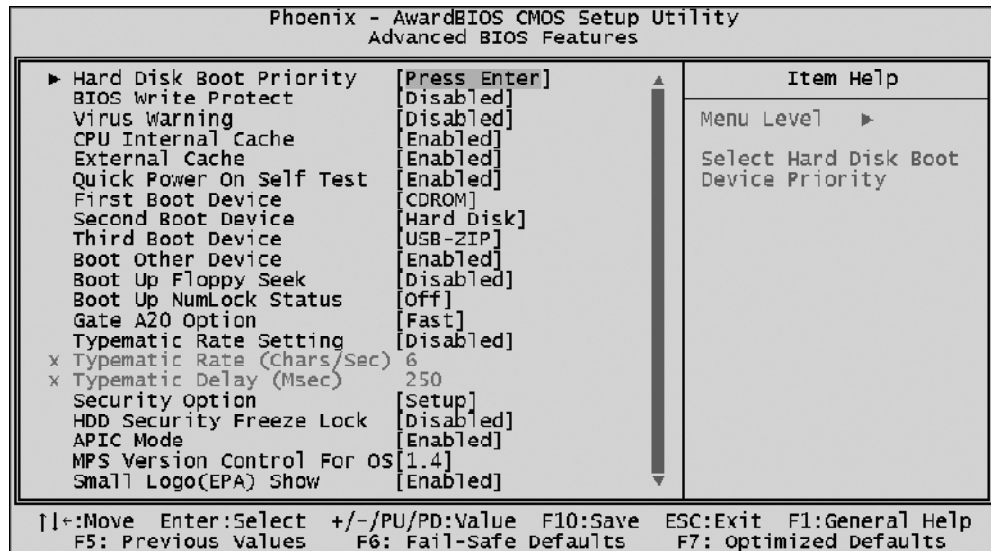
Number of sector per track.

- Min = 0, Max = 255



Advanced BIOS Features

This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing, and security.



Hard Disk Boot Priority

This item allows you to select Hard Disk Book Device Priority.

BIOS Write Protect

The item allows you to enable/disable the Bios Write Protect.

- The choice: Enabled or Disabled.

Virus Warning

Allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enables and someone attempts to write data into this area, BIOS will show a warning message on screen, and an alarm beep.

Enabled Activates automatically when the system boots up, causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.

Disabled No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

- The choice: Enabled or Disabled.

CPU Internal Cache

All processors that can be installed in this mainboard use internal level 1 (L1) cache memory to improve performance. Leave this item at the default value for better performance.

- The choice: Enabled or Disabled.

External Cache

Most processors that can be installed in this system use external level 2 (L2) cache memory to improve performance. Leave this item at the default value for better performance.

- The choice: Enabled or Disabled.

Quick Power On Self Test

This item speeds up Power-On Self Test (POST) after you power on the computer. If it is set to enabled, BIOS will shorten or skip some check items during POST.

- The choice: Enabled or Disabled.

First/Second/Third Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items.

- The Choice: Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, Legacy LAN, or Disabled.

Boot Other Device

Select Your Boot Device Priority.

- The choice: Enabled or Disabled.

Boot Up Floppy Seek

Seeks disk drives during boot-Up. Disabling speed boots up. Enabled tests floppy drives to determine whether they have 40 or 80 tracks.

- The choice: Enabled or Disabled.

Boot Up NumLock Status

Selects power on state for NumLock.

- The choice: Off or On.

Gate A20 Option

This entry allows you to select how the gate A20 is handled. The gate A20 is a device used for above 1MByte of address memory. Initially, the gate A20 was handled via a pin on the keyboard. Today, while a keyboard still provides this support, it is more common and much faster in setting to Fast for the system chipset to provide support for gate A20.

- The choice: Normal or Fast.

Typematic Rate Setting

Keystrokes repeat at a rate determined by the keyboard controller. When this controller enabled, the typematic rate and typematic delay can be selected.

- The choice: Enabled or Disabled.

Typematic Rate (Chars/Sec)

This item sets how many times the keystroke will be repeated in a second when you hold the key down.

- The choice: 6, 8, 10, 12, 15, 20, 24 or 30.

Typematic Delay (Msec)

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

- The choice: 250, 500, 750 or 1000.

Security Option

Select whether the password is required every time the system boots or only when you enter setup.

System The system will not boot and access to Setup will be denied if the correct password is not entered promptly.

Setup The system will boot, but access to Setup will be denied if the correct password is not entered promptly.

- The choice: System or Setup.

Note : To disabled security, select PASSWORD SETTING at Main Menu, and then you will be asked to enter password. Do not type anything and just press <Enter>; it will disable security. Once the security is disabled, the system will boot, and you can enter Setup freely.

HDD Security Freeze Lock

Selects enable/disable HDD Security Freeze Lock, Enabled - prevents any external application from locking Hard drive except for BIOS.

- The choice: Enabled or Disabled.

APIC Mode

Selects enable/disable IO APIC function

- The choice: Enabled or Disabled.

MPS Version Control For OS

Selects the operating system multiprocessor support version.

- The choice: 1.1 or 1.4

Small Logo(EPA) Show

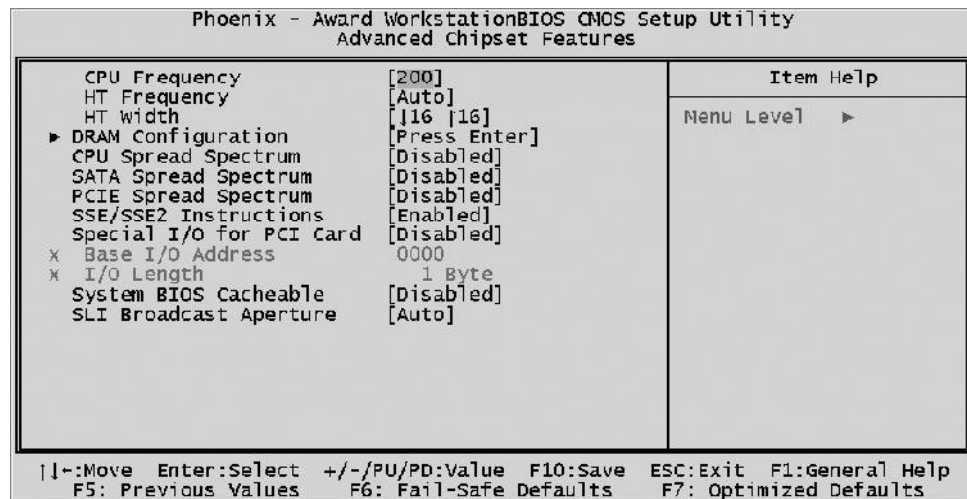
This item allows you to enable/disable the EPA Logo.

- The choice: Enabled or Disabled.

Advanced Chipset Features

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communications between the conventional ISA bus and the PCI bus. It states that these items should never need to be altered.

The default settings have been chosen because they provide the best operating conditions for your system. If you discovered that data was being lost while using your system, you might consider making any changes.



CPU Frequency

This item allows you to set the CPU Frequency.

- The choice: 200.0 ~ 280.0.

HT Frequency

This item allows you to set the HT Frequency.

- The choice: 1x ~ 5x.

HT Width

This item allows you to set the HT Width.

- The choice: ↓16 ↑16, ↓8 ↑8, ↓16 ↑8, ↓8 ↑16.

DRAM Configuration

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

Timing Mode

- The Choice: Manual or Auto.

Memclock index value (Mhz)

Places an artificial memory clock limit on the system.

Memory is prevented from running faster than this frequency.

- The Choice: 100Mhz, 133Mhz, 166Mhz, 200Mhz, 216Mhz, 233Mhz or 250Mhz.

CAS# latency (Tcl)

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Don't change this field from the default value specified by the system designer.

- The Choice: 2, 2.5 or 3.

Min RAS# active time (Tras)

Places an artificial memory clock limit on the system.

Memory is prevented from running faster than this frequency.

- The Choice: Auto or 5T ~ 15T.

RAS# to CAS# delay (Trcd)

This field lets you insert a timing delay between the CAS and RAS strobesignals, and you can use it when DRAM is written to , read from, or refreshed. Faster performance is gained in high speed, more stable performance, in low speed..

- The Choice: Auto or 2T ~ 7T.

Row precharge Time (Trp)

This field specifies the Row precharge Time. Precharge to Active or Auto-Refresh of the same bank. Typically 20-24 nsec.

- The Choice: Auto or 2T ~ 7T.

1T/2T Memory Timing

This item allows you to set the 1T/2T Memory Timing

- The Choice: 1T or 2T.

MTRR mapping mode

This item allows you to set the MTRR mapping mode.

- The Choice: Continuous or Discretes.

CPU Speed Spectrum

This item allows you to set the CPU Speed Spectrum.

- The choice: Center Speed or Disabled.

SATA Spread Spectrum

This item allows you to set the SATA Spread Spectrum.

- The choice: Down Spread or Disabled.

PCIe Spread Spectrum

This item allows you to set the SATA Spread Spectrum.

- The choice: Down Spread or Disabled.

SSE/SSE2 Instructions

This item allows you to enable/disable the SSE/SSE2 Instructions.

- The choice: Enabled or Disabled.

Special I/O for PCI Card

This item enable/disable the Special I/O for PCI Card.

- The choice: Disabled or Enable.

Base I/O Address

This item allows you to set the Base I/O Address.

- The Choice: 0000 ~ FFFF.

I/O Length

This item allows you to set the I/O Length.

- The choice: 1 Byte, 4 Byte, 8 Byte, 16 Byte, 32 Byte, 64 Byte, 128 Byte or 256 Byte.

System BIOS Cacheable

Select Enable allows caching of the system BIOS ROM at F000h-FFFFh, resulting in better system performance. However, if any program is written to this memory area, a system error may result.

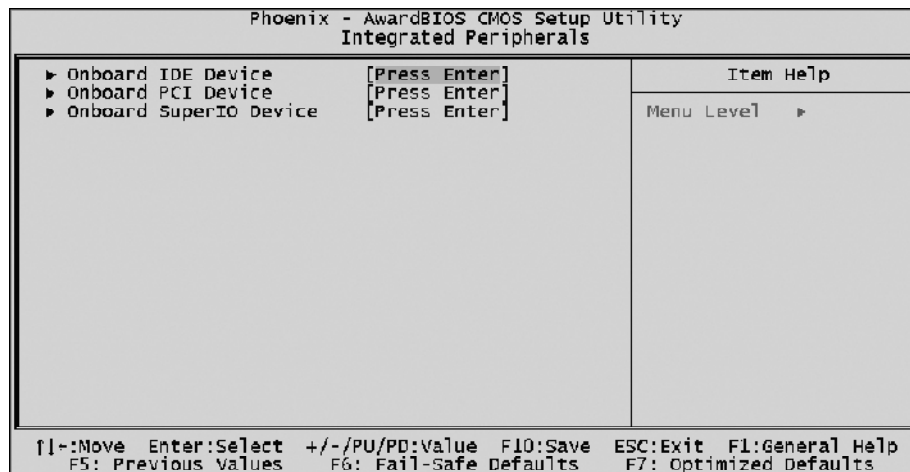
- The Choice: Enabled or Disabled.

SLI Broadcast Aperture

This item allows you to set the SLI Broadcast Aperture.

- The choice: Auto or Disabled.

Integrated Peripherals



Onboard IDE Device

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

RAID Function Setup

Press <Enter> to enter the RAID Function.

OnChip IDE Channel 0

The chipset contains a PCI IDE interface with support to two IDE channels. Select Enabled to activate the primary IDE interface. select Disabled to deactivate this interface.

- The Choice: Enabled or Disabled.

Primary Master/Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

- The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, or Mode 4.

Primary Master/Slave UDMA

Ultra DMA/100 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If both of your hard drive and your system software support Ultra DMA/100, select Auto to enable BIOS support.

- The choice: Auto or Disabled.

Serial-ATA 1/2

This item allows you to enable/disable the Serial-ATA 1/2.

- The choice: Enabled or Disabled.

SATA DMA transfer

This item allows you to enable/disable the SATA transfer access.

- The choice: Enabled or Disabled.

IDE Prefetch Mode

The onboard IDE drive interface support IDE prefetching for faster drive access. If you install a primary and /or secondary add-on IDE interface, set this field to Disabled if the interface does not support prefetching.

- The Choice: Enabled or Disabled.

IDE DMA transfer access

This item allows you to enable/disable the IDE DMA transfer access.

- The choice: Enabled or Disabled.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drivers do), select Enabled for automatic detection of the optimal number of block read/write per sector the drive can support.

- The Choice: Enable or Disabled.

Onboard PCI Device

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

OnChip USB

This should be enabled if your system has a USB installed on the system board and you want to use it.

- The choice: Desable, V1.1 + V2.0 or V1.1.

OnChip Lan

This item allows you to control the onboard Lan.

- The Choice: AUTO or Disabled.

Onboard SuperIO Device

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

Onboard FDC Controller

This item specifies onboard floppy disk drive controller. This setting allows you to connect your floppy disk drives to the onboard floppy connector.

- The Choice: Enable or Disabled.

Onboard Serial Port1

This option is used to assign the I/O address and interrupt request(IRQ) for the onboard serial port1(COM1).

- The Choice: Disabled, 3F8-IRQ4, 2F8-IRQ3, 3E8-IRQ4, 2E8-IRQ3, or Auto.

Onboard Infrared Port

This option is used to assign the I/O address and interrupt request(IRQ) for the onboard infrared port.

- The Choice: Disabled, 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, or Auto.

UART Mode Select

This item allows you to select IrDA infrared through COM2 port.

- The Choice: IrDA, ASKIR or SCR.

UR2 Duplex Mode

This item allows you to select the IR half or full duplex function.

- The Choice: Full or Half.

Onboard Parallel Port

This item allows you to determine onboard parallel port controller I/O address and interrupt request(IRQ).

- The Choice: Disabled, 378/IRQ7, 278/IRQ5 or 3BC/IRQ7.

Parallel Port Mode

Select an operating mode for the onboard parallel (printer) port. Select Normal, Compatible, or SPP unless you are certain your hardware and software both support one of the other available mode.

- The Choice: SPP, EPP, ECP or ECP+EPP.

ECP Mode Use DMA

When the onboard parallel is set to ECP mode, the parallel port can use DMA3 or DMA1.

- The Choice: 1 or 3.



Power Management Setup

Phoenix - AwardBIOS CMOS Setup Utility Power Management Setup		
ACPI function	Enabled	Item Help
ACPI Suspend Type	[S1(POS)]	Menu Level ▶
Power Management	[User Define]	
Video Off Method	[DPMS Support]	
HDD Power Down	[Disabled]	
HDD Down In Suspend	[Disabled]	
Soft-Off by PBTN	[Instant-Off]	
PowerOn After Pwr-Fail	[Off]	
WOL(PME#) From Soft-Off	[Disabled]	
WOR(RI#) From Soft-Off	[Disabled]	
USB Resume from S3	[Disabled]	
Power-On by Alarm	[Disabled]	
x Day of Month Alarm	4	
x Time (hh:mm:ss) Alarm	0 : 0 : 26	
PS2 Keyboard Power ON	[Disabled]	
KB Power ON Password	[Enter]	
Hot Key Power ON	[Any Key]	
PS2 Mouse Power ON	[Disabled]	
↑↓:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

The Power Management Setup allows you to configure your system to most effectively saving energy while operating in a manner consistent with your own style of computer use.

ACPI Function

This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI).

- Always "Enabled".

ACPI Suspend Type

This item allows you to select sleep state when suspend.

- The choice: S1(POS) or S3(STR).

Power Management

This category allows you to select the type (or degree) of power saving mode settings.

Min Saving Minimum power management.
Suspend Mode = 15 min.

Max Saving Maximum power management.
Suspend Mode = 1 min.

User Define Allows you to set each mode individually.
Suspend Mode = Disabled or 1 min ~ 15min.

- The choice: User Define, Min Saving or Max Saving.

Video Off Method

This determines the manner in which the monitor is blanked.

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 Supported Initial display power management signaling.

- The choice: V/H SYNC + Blank, Blank Screen or DPMS Supported.

HDD Power Down

The IDE hard drive will spin down if it is not accessed within a specified length of time. Options are from 1 Min to 15 Min and Disable.

- The choice: Disabled or 1 Min ~ 15 Min.

HDD Down In Suspend

The item allows you to enable or disabled the HDD Down In Suspend.

- The choice: Enabled or Disabled.

Soft-Off By PBTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung".

- The choice: Delay 4 Sec or Instant-Off.

PWRON After PWR-Fail

This item allows you to select power on function when power fail.

- The choice: Former-Sts, Off or On.

WOL(PME#) From Soft-Off

If this item sets to Enable, the system power will be turned on when the LAN port receives an incoming signal. You have to connect the fax/modem to the mainboard Wake On LAN connector for this feature to work.

- The choice: Enabled or Disabled.

WOR(RI#) From Soft-Off

If this item is enable, it allows the system to resume from a software power down or power-saving mode whenever there is an incoming call to an installed fax/modem. You have to connector the fax/modem to the mainboard.

- The choice: Enabled or Disabled.

USB Resume From S3

If you are using a USB keyboard, and the ACPI suspend type is set to S3, you can enable this item to allow a keystroke to wake up the system from power saving mod.

- The choice: Enabled or Disabled.

Power-On by Alarm

When set to Enabled, the following three fields become available and you can set the month, date (day of the month), hour, minute and second to turn on your system.

- The choice: Enabled or Disabled.

Day of Month Alarm

This item selects the alarm Day of Month.

- The choice: 0 ~ 31.

Time (hh : mm : ss) Alarm

This item selects the alarm Time.

[hh] ➤ Key in a DEC number: Min = 0, Max = 23.

[mm/ss] ➤ Key in a DEC number: Min = 0, Max = 59.

PS2 Keyboard Power ON

When the POWER ON Function is set to PS2 Keyboard, use this item to set the PS2 keyboard combination that turns on the system.

- The choice: Disabled, Password or Hot KEY.

KB Power ON Password

When the POWER ON Function is set to Password, use this item to set the password.

- The choice: Enter.

Hot Key Power ON

When the POWER ON Function is set to Hot Key, use this item to set the hot key combination that turns on the system.

- The choice: Ctrl-F1 ~ F12 or Any key.

PS2 Mouse Power ON

When the POWER ON Function is set to PS2 Mouse, use this item to set the PS2 mouse combination that turns on the system.

- The choice: Disabled or Enabled.



PnP/PCI Configurations

Phoenix - AwardBIOS CMOS Setup Utility		Item Help
PnP/PCI Configurations		
Reset Configuration Data	[Disabled]	Menu Level ▶ Default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot
Resources Controlled By	[Auto(ESCD)] Press Enter	
x IRQ Resources		
PCI/VGA Palette Snoop	[Disabled]	
** PCI Express relative items **		
Maximum Payload Size	[4096]	
↑↓:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

This section describes the configuration of PCI bus system. PCI or Personal Computer Interconnection is a system which allows I/O devices to operate at the speed CPU itself keeps when CPU 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.

Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit from Setup if you have installed a new device or software and the system reconfiguration has caused such a serious conflict that the operating system can not boot.

- The choice: Enabled or Disabled .

Resource controlled By

The Award Plug-and-Play BIOS has the capacity to automatically configure all of the boot and Plug-and-Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug-and-Play operating system such as Windows 95.

If you set this field to "manual" , choose specific resources by going into each of the sub-menu that follows this field (a sub-menu is proceeded by a ">").

- The choice: Auto(ESCD) or Manual.

IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

IRQ3/4/5/7/9/10/11/12/14/15 assigned

This item allows you to determine the IRQ assigned to the ISA bus and is not available to any PCI slot. Legacy ISA for devices is compliant with the original PC AT bus specification; PCI/ISA PnP for devices is compliant with the Plug-and-Play standard whether designed for PCI or ISA bus architecture.

➤ The choice: PCI Device or Reserved.

PCI/VGA Palette Snoop

It determines whether the MPEG ISA/VESA VGA Cards can work with PCI/VGA or not. If you have MPEG ISA/VESA VGA Cards and PCI/VGA Card worked, Enable this field. Otherwise, please Disable it.

➤ The choice: Enabled or Disabled.

**** PCI Express relative items ****

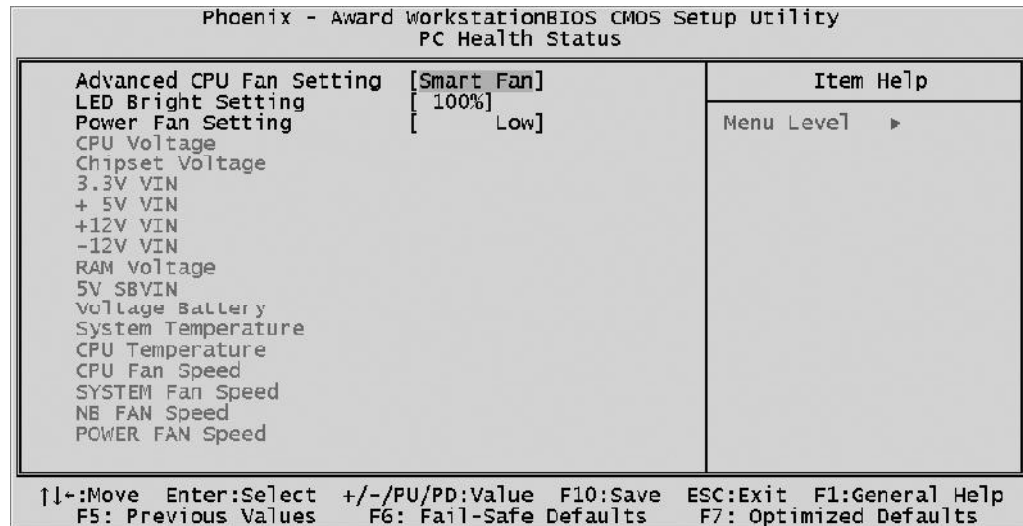
Maximum Payload Size

Set maximum TLP payload size for the PCI Express devices.
The unit is byte.

➤ The choice: 128, 256, 512, 1024, 2048 or 4096.



PC Health Status



Advanced CPU Fan Setting

Set the CPU Fan Speed.

- The choice : Smart Fan, Noise Control - U Low, Noise Control - Low, Noise Control - Mid, Noise Control - Full, Temp Control - 50°C, Temp Control - 55°C, Temp Control - 60°C or Temp Control - 65°C.

Smart Fan : The CPU fan speed will be increased when the temperature of CPU is raising up. Upon the temperature raising up to 80°C, the CPU fan will be full speed.

Noise Control-U Low : When the CPU fan being set up as ULTRA LOW and the temperature of CPU is raising up to 80°C, the CPU fan being full speed.

Noise Control-Low : When the CPU fan being set up as LOW and the temperature of CPU is raising up to 80°C, the CPU fan being full speed.

Noise Control-Mid : When the CPU fan being set up as Mid and the temperature of CPU is raising up to 80°C, the CPU fan being full speed.

Noise Control-Full : CPU fan full speed.

Temp Control-50°C : When the CPU fan being set up as auto-modified, the temperature of CPU will be remained as 50°C.

Temp Control-55°C : When the CPU fan being set up as auto-modified, the temperature of CPU will be remained as 55°C.

Temp Control-60°C : When the CPU fan being set up as auto-modified, the temperature of CPU will be remained as 60°C.

Temp Control-65°C : When the CPU fan being set up as auto-modified, the temperature of CPU will be remained as 65°C.

Note : Before manually modifying the CPU fan setting, please make sure fan connectors are plug into the correct fan connector designations on the mainboard.

LED Bright Setting

Set the LED Bright.

➤ The choice : 0%, 25%, 37.5%, 50%, 62.5%, 75%, 87.5% or 100%.

Power Fan Setting :

Set the Power Fan.

➤ The choice : Ultra Low, Low, Mid or Full

CPU Voltage

AGP Voltage

+ 3.3V VIN

+ 5V VIN

+ 12V VIN

-12V VIN

RAM Voltage

5V SBVIN

Voltage Battery

CPU Temperature

System Temperature

CPU Fan Speed

SYSTEM Fan Speed

NB Fan Speed

POWER FAN Speed

Warning : It is Strongly recommended to disable CPU Fan Auto Guardian feature, if you wish to use other fan cooler, allowing the fan to run at its default speed.



Ratio/Voltage Control

Phoenix - AwardBIOS CMOS Setup Utility	
Ratio/Voltage Control	
CPU Ratio	[Auto]
CPU Voltage Select	[Auto]
RAM Voltage Select	[Auto]
Chipset Voltage Select	[Auto]
Item Help	
Menu Level ▶	
↑↓:Move Enter:Select +/-:PU/PD:value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults	

CPU Ratio

This item allows you to set the CPU Ratio.

- The choice: x4 800Mhz, x5 1000Mhz, x6 1200Mhz, x7 1400Mhz, x8 1600Mhz, x9 1800Mhz, x10 2000Mhz, x11 2200Mhz, x12 2400Mhz, x13 2600Mhz, x14 2800Mhz, x15 3000Mhz, x16 3200Mhz, x17 3400Mhz, x18 3600Mhz, x19 3800Mhz, x20 4000Mhz, x21 4200Mhz, x22 4400Mhz, x23 4600Mhz, x24 4800Mhz, x25 5000Mhz or Auto.

CPU Voltage Select

This item allows you to set the CPU Voltage.

- The choice: 0.800V, 0.825V, 0.850V, 0.875V, 0.900V, 0.925V, 0.950V, 0.975V, 1.000V, 1.025V, 1.050V, 1.075V, 1.100V, 1.125V, 1.150V, 1.175V, 1.200V, 1.225V, 1.250V, 1.275V, 1.300V, 1.325V, 1.350V, 1.375V, 1.400V, 1.425V, 1.450V, 1.475V, 1.500V, 1.525V, 1.550V, 1.600V, 1.650V, 1.700V or Auto.

RAM Voltage Select

This item allows you to set the RAM Voltage.

- The choice: 2.70V, 2.80V, 2.90V or Auto.

Chipset Voltage Select

This item allows you to set the Chipset Voltage.

- The choice: 1.70V, 1.80V, 1.90V or Auto.



Load Fail-Safe Defaults

When you press <Enter> on this item, you will get a confirmation dialog box with a message similar to:

Load Fail-Safe Defaults (Y/N) ? N

Pressing 'Y' loads the BIOS default values for the most stable, minimal performance system operations.



Load Optimized Defaults

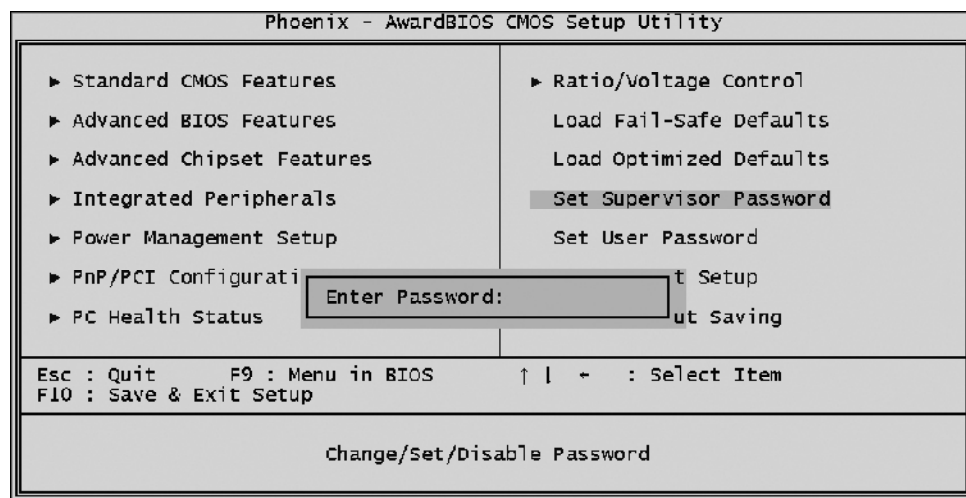
When you press <Enter> on this item, you will get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N) ? N

Pressing 'Y' loads the default values that are factory-set for optimal performance system operation.



Set Supervisor/User Password



Steps to set supervisor/user password are described as follows:

New Password Setting:

1. Press the <Enter> key. A dialog box appears to ask you to "Enter password: ".
2. Key in a new password.
The password can not be over eight characters or numbers.
3. The system will then request you to confirm the new password by asking you to key in the new password again.
4. Once the confirmation is completed, new code is in effect.

No Password Setting:

5. If you want to delete the password, just press the <Enter> key instead of typing a new password. Follow the procedure as above.

If You Forget Password:

6. If you forget your password, you must turn off the system and clear CMOS.
Please refer to the tech notes at the end of section two for more information.

**Save & Exit Setup**

Pressing <Enter> on this item asks for confirmation:

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

Pressing "Y" stores the selections made in the menus of CMOS - a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

**Exit Without Saving**

Pressing <Enter> on this item asks for confirmation:

Quit Without Saving (Y/N)? N

This allows you to exit from Setup without storing in CMOS any change. The previous selections remain in effect. This exits from the Setup utility and restarts your computer.



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