

## **APC-8172**

Socket 478 based

Intel® Pentium® 4 Processors

Industrial Panel PC

With 17" TFT LCD &

Two free expansion slots

## Copyright Notice

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## Packing List

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Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 APC-8172 AAEON Panel PC
- 1 Jumper Cap
- 2 Easy stand
- 1 Waterproof sponge
- 12 Panel mount clip & screw
- 1 Screw Bag
- 1 Power Cord (optional)
- 1 CD-ROM for manual (in PDF format) and drivers

If any of these items should be missing or damaged, please contact your distributor or sales representative immediately.



## Safety & Warranty

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1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
12. Never pour any liquid into an opening. This could cause fire or electrical shock.
13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
14. If any of the following situations arises, get the equipment checked by service personnel:
  - a. The power cord or plug is damaged.
  - b. Liquid has penetrated into the equipment.

- c. The equipment has been exposed to moisture.
  - d. The equipment does not work well, or you cannot get it to work according to the users manual.
  - e. The equipment has been dropped and damaged.
  - f. The equipment has obvious signs of breakage.
15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.
16. External equipment intended for connection to signal input/output or other connectors, shall comply with relevant UL / IEC standard (e.g. UL 60950 for IT equipment and UL 2601-1 / IEC 60601 series for medical electrical equipment). In addition, all such combinations – systems – shall comply with the standard IEC 60601-1-1, Safety requirements for medical electrical systems. Equipment not complying with UL 2601-1 shall be kept outside the patient environment, as defined in the standard.

## FCC Safety

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### ***Warning!***



This device complies with Part 15 FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

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## **Chapter**

# **1**

## **General Information**

## Introduction

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APC-8172 is first Pentium®4 industrial board in AAEON Panel PC product line. It features a PGA478 socket that can accommodate Pentium®4 and Celeron®Processor, supporting FSB up to 400/533MHz.

### **Best performance for multimedia solution**

AAEON's APC-8172 also supports DDR DRAM up to 1GB, 4X AGP, and 5.1 channels audio output. It can provide the strong multimedia functions. Therefore APC-8172 can be broadly implemented in several markets, such as Point of sale, point of information (Kiosk), and gaming markets.

### **Multi-Function Pentium4 Platform**

If you are looking for powerful multi-media applications, APC-8172 is the one. APC-8172 integrates 17" color TFT LCD, Digital I/O, Audio and Ethernet function; meanwhile it also supports 5 USB2.0, mini PCI, and two PCI slots. With flexible expansion, you get easy access to solutions ranging from Modem, Storage, Sound Card, SCSI card, Audio/Video capture card, Wireless LAN module, to Bluetooth module. Especially for customers whom application is various or changing, APC-8172 reserves more than enough flexibility for future expansion.

APC-8172 provides more CPU options for different applications. You can choose Pentium®4 processor up to 3.06G for high



performance application. Most of all Pentium®4 Level processors are suitable for APC-8172.

## Features

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- 17" TFT SXGA (1280 x 1024) LCD
- All-in-one SBC support Socket 478 based Intel® Pentium®4 Processor
- Support Intel®Hyper-Threading Technology
- Anti-vibration disk drive bay for HDD
- Water-proof and anti-scratch IP-65 certified aluminum front panel with USB port certification
- Two free PCI expansion slots
- Digital I/O (8 in, 8 out as Default, up to 16 in or 16 out)
- Resistive Touch screen (Optional)

## Specifications

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### System

- Construction Heavy-duty steel chassis & IP-65 certified aluminum front panel (or optional stainless steel front panel)
- CPU Socket 478 based Pentium® 4(13 μ) / Celeron® Processors up to 3.06GHz with FSB 400/533MHz, Hyper-Threading Technology supported
- Memory 184 pin DIMM x 1, support DDR 200/266/333MHz up to 1GB
- Display 17" SXGA color TFT LCD
- LCD / CRT controller Intel® i845GV, AGP 4X
- Network (LAN) Intel® 82562 10/100 Base-T Ethernet controller
- I/O Chipset 3 serial ports: 2 x RS-232, 1 x

RS-232/422/485 (COM 4 is reserved for touch screen)

1 parallel port (supports ECP/EPP)

1 PS/2 mouse and keyboard port

1 VGA port

Mic in, Line in, Line out, S/P DIF  
5.1 channels audio port

GPIO: 16 in or 16 out

- Storage Disk Drive Anti-vibration 2.5”HDD, Slim

FDD and Slim CD-ROM

- USB ports 4 USB 2.0 ports on rear chassis

1 USB 2.0 port on front panel

(Lockable by BIOS)

Because of USB chipset limitation, front USB port and Card reader USB interface are linked together, when user “disable” front USB port ( USB Port 3 controller ) , the card reader must be forced to disable at same time.

- Front Panel PMS 2965C (Dark Blue)

- Mounting Panel Mount, VESA

75/100mm holes

- Expansion slots    2 PCI slots  
1 Mini PCI socket  
6in1 card reader.

Because of drivers bug, after successfully installing card reader drivers, two vanity disk drives appear: XD and Flash. Please ignore the two useless disk drives.

Support CompactFlash® (Type I/II), Secure Digital, Multi Media Card, Memory Stick (PRO) and Smart Media

- Power Supply    Universal 250W switching power supply
- OS support    Windows 98SE, Windows 2000, Windows XP
- Dimension (W x H x D) 483 x 399 x 145mm  
(19" x 15.7" x 5.7")
- Carton Dimension (W x H x D) 620 x 522 x 351mm  
(24.4" x 20.6" x 13.8" )
- Gross Weight    17.8KG (39.2 lbs)

## Power Supply

- AC input 250W (standard offer):
  - ✓ Output rating: 250W
  - ✓ Input voltage:
   
100VAC~240VAC@60~50Hz
  - ✓ Output voltage:
   
+3.3V@16A, +5V@25A, +12V@13A,
  
+5VSB@2A, -5V@0.3A, -12V@0.8A
- 24V DC input:
  - ✓ Output rating: 300W (Maximum)
  - ✓ Input voltage: 19VDC~36VDC@30A
  
Maximum
  - ✓ Output voltage:
   
+5V@25A, +12V@22A,
  
+3.3V@20A, -5V@0.8A, -12V@1A,
  
5VSB@1.5A

### LCD Specifications

Display type	17" color TFT LCD
Max. Resolution	1280 x 1024
Max. Colors	256K
Dot size (mm)	0.264 x 0.264
Luminance (cd/m <sup>2</sup> )	260 (TYP)
Viewing angle	160 (H)
	160 (V)
Back Light MTBF (Hrs)	40,000

### Touch screen (Optional)

- Type 8-wire, analog resistive
- Resolution 2048 x 2048
- Light transmission >75%
- Lifetime 1 million activations
- OS support Windows 98SE, Windows 2000,  
Windows XP

### Environment Specifications

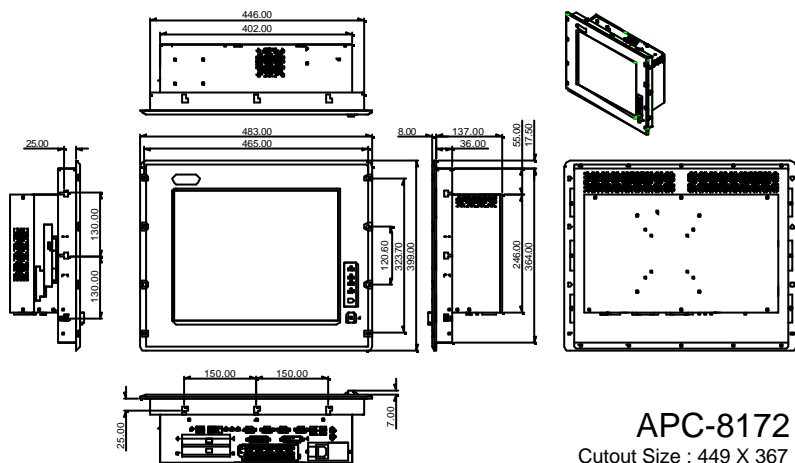
- Operating temperature 0 ~50 (32~122 )
- Storage temperature -20 ~60 (-4~140 )
- Operating humidity 10 to 90% @35 ,  
non-condensing

- Vibration 1G / 5~500Hz (Random / operation)
- Shock 15G peak acceleration (11 msec. duration) / operation
- EMC CE/FCC Class B



## Di mensi on

Unit : mm



**Chapter****2****Hardware  
Installation****Notice:**

*The Quick Installation Guide is derived from Chapter 2 of user manual. For other chapters and further installation instructions, please refer to the user manual CD-ROM that came with the product.*

## Safety Precautions

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**Warning!**

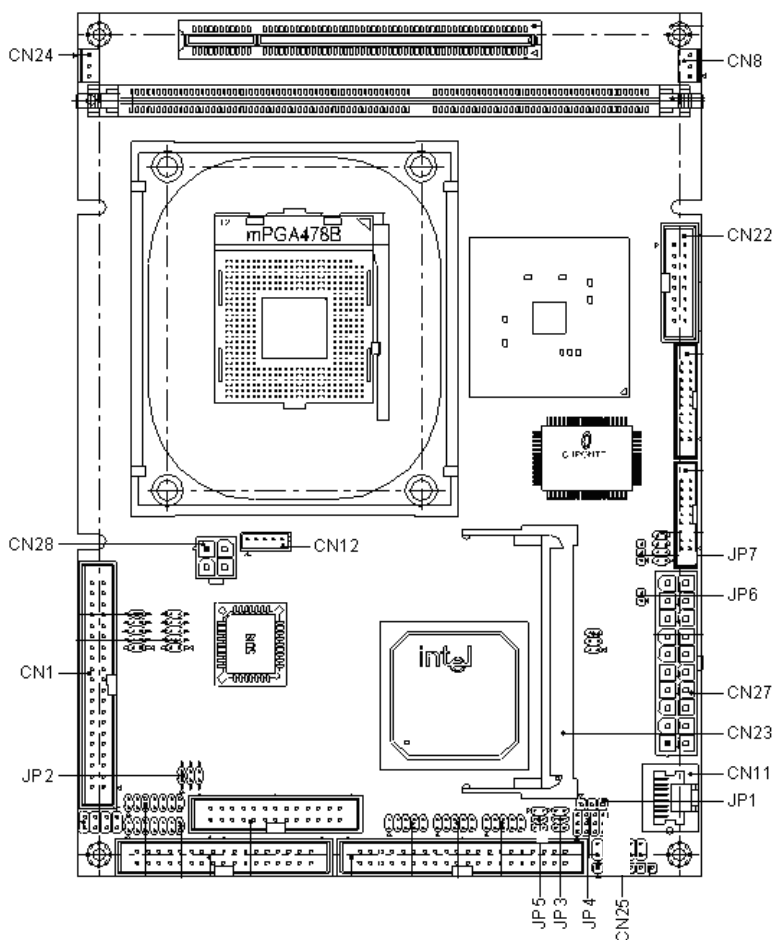
*Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.*

**Caution!**

*Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis*

## Location of Connectors and Jumpers

### Component Side



## List of Jumpers

---

There are a number of jumpers in the board that allow you to configure your system to suit your application.

The table below shows the function of each jumper in the board:

### Jumpers

Label	Function
JP1	Clear CMOS
JP2	Audio Out Select
JP3	COM2 Ring/+5V/+12V Selection
JP4	COM2 RS-232/422/485 Selection
JP5	COM2 RS-232/422/485 Selection
JP6	ATX Power simulate AT Power
JP7	LCD Voltage Selection

## List of Connectors

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There are a number of connectors in the board that allow you to configure your system to suit your application. The table below shows the function of each connector in the board:

### Connectors

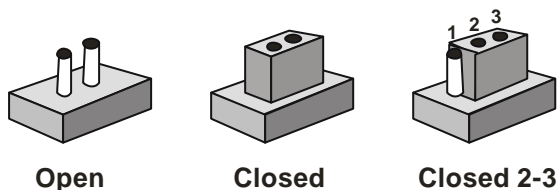
Label	Function
CN1	EIDE HDD Connector
CN8,CN24	Fan Connector
CN11	10/100Base-Tx Ethernet Connector
CN12	Option PME Connector
CN22	VGA Display Connector
CN23	MINI PCI SLOT
CN25	Front Panel
CN27	ATX Power Connector
CN28	ATX Power 12V Connector

## Setting Jumpers

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You configure your card to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To “close” a jumper you connect the pins with the clip.

To “open” a jumper you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2 and 3. In this case you would connect either pins 1 and 2 or 2 and 3.



A pair of needle-nose pliers may be helpful when working with jumpers.

If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any change.

Generally, you simply need a standard cable to make most connections.

## Clear CMOS (JP1)

---

**Warning:**

*To avoid damaging the computer, always turn off the power supply before setting "Clear CMOS." Before turning on the power supply, set the jumper back to "Normal."*

JP1	Function
1-2	Active (Default)
2-3	Clear

## Audio Out Select (JP2)

---

JP2	Function
1-3, 2-4	W/O Amplifier (Default)
3-5, 4-6	W/ Amplifier

## COM2 Ring/+5V/+12V Selection (JP3)

---

JP3	Function
1-2	+12V
3-4	+5V
5-6	Ring (Default)



## COM2 RS-232/422/485 Select (JP4&JP5)

---

JP4	JP5	Function
1-2, 4-5, 7-8, 10-11	1-2	RS-232 (Default)
2-3, 5-6, 8-9, 11-12	3-4	RS-422
2-3, 5-6, 8-9, 11-12	5-6	RS-485

## ATX Power simulate AT Power (JP6)

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JP6	Function
1-2 ON	ATX Power Simulate AT Power
1-2 OFF	ATX Standard (Default)

## IDE Connector (CN1)

---

Pin	Signal	Pin	Signal
1	IDE RESET	2	GND
3	DATA7	4	DATA8
5	DATA6	6	DATA9
7	DATA5	8	DATA10
9	DATA4	10	DATA11
11	DATA3	12	DATA12
13	DATA2	14	DATA13
15	DATA1	16	DATA14
17	DATA0	18	DATA15
19	GND	20	N.C
21	REQ	22	GND
23	IO WRITE	24	GND
25	IO READ	26	GND
27	IO READY	28	GND
29	DACK	30	GND
31	IRQ14	32	N.C
33	ADDR1	34	UDMA DETECT
35	ADDR0	36	ADDR2
37	CS#1	38	CS#3
39	LED	40	GND

## Fan Connector (CN8&CN24)

Pin	Signal
1	GND
2	+5V
3	FAN SPEED SENSE

## 10/100Base-Tx Ethernet Connector (CN11)

Pin	Signal	Pin	Signal
1	TX+	9	N.C
2	TX-	10	N.C
3	RX+	11	GND
4	N.C	12	GND
5	N.C	13	N.C
6	RX-	14	N.C
7	N.C	15	N.C
8	N.C	16	N.C

## Option PME Connector (CN12)

Pin	Signal	Pin	Signal
1	+5VSB	2	GND
3	#PME	4	SMB_DATA
5	SMB_CLK		

## Floppy Connector (CN13)

---

Pin	Signal	Pin	Signal
1	GND	2	REDWC
3	GND	4	N.C
5	GND	6	DS1
7	GND	8	INDEX
9	GND	10	MOTOR A
11	GND	12	DRIVE SELECT B
13	GND	14	DRIVE SELECT A
15	GND	16	MOTOR B
17	GND	18	DIR
19	GND	20	STEP
21	GND	22	WRITE DATA
23	GND	24	WRITE GATE
25	GND	26	TRACK
27	GND	28	WRITE PROTECT
29	GND	30	READ DATA
31	GND	32	SIDE1
33	GND	34	DISK CHANGE

## LPT Port Connector (CN14)

---

Pin	Signal	Pin	Signal
1	STROBE	2	AFD
3	PTD0	4	ERROR

AAEON Panel PC		APC-8172	
5	PTD1	6	INIT
7	PTD2	8	SLIN
9	PTD3	10	GND
11	PTD4	12	GND
13	PTD5	14	GND
15	PTD6	16	GND
17	PTD7	18	GND
19	ACK	20	GND
21	BUSY	22	GND
23	PE	24	GND
25	SELECT	26	N.C

## COM1~3 RS-232/422/485 Serial Port Connector (CN16)

Only COM1 support “Wake on Ring” function.

Pin	Signal	Pin	Signal
1	DCD1	2	DSR1
3	RXD1	4	RTS1
5	TXD1	6	CTS1
7	DTR1	8	RI1
9	GND	10	N.C
11	DCD2(422TXD-/485DATA-)	12	DSR2 (422RXD+)
13	RXD2(422TXD+/485DATA+)	14	RTS2 (422RXD-)
15	TXD2	16	CTS2
17	DTR2	18	RI2
19	GND	20	N.C
21	DCD3	22	DSR3

AAEON Panel PC		APC-8172	
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23	RXD3	24	RTS3
25	TXD3	26	CTS3
27	DTR3	28	RI3
29	GND	30	N.C
31	DCD4	32	DSR4
33	RXD4	34	RTS4
35	TXD4	36	CTS4
37	DTR4	38	RI4
39	GND	40	N.C

## PS2 Keyboard/Mouse Connector (CN17)

Pin	Signal
1	KB_DATA
2	KB_CLK
3	GND
4	+5V
5	MS_DATA
6	MS_CLK

## Digital I/O Port

Pin	Signal	I/O Address Setting
1	Digital-IN / OUT	841H
2	Digital-IN / OUT	841H
3	Digital-IN / OUT	841H
4	Digital-IN / OUT	841H
5	GND	
6	GND	
7	Digital-IN / OUT	841H
8	Digital-IN / OUT	841H
9	Digital-IN / OUT	841H
10	Digital-IN / OUT	841H
11	GND	
12	GND	
13	Digital-IN / OUT	801H
14	Digital-IN / OUT	801H
15	Digital-IN / OUT	801H
16	Digital-IN / OUT	801H
17	GND	
18	GND	
19	Digital-IN / OUT	801H
20	Digital-IN / OUT	801H
21	Digital-IN / OUT	801H
22	Digital-IN / OUT	801H
23	+5V	
24	+5V	
25	+5V	

The pin definitions and registers mapping are illustrated below:

Address: 841H

**4 in / 4 out**

Pin1	Pin2	Pin3	Pin4	Pin7	Pin8	Pin9	Pin10
GPI 27	GPI 26	GPI 25	GPI 24	GPO 23	GPO 22	GPO 21	GPO 20
MSB							LSB

**8 in**

Pin1	Pin2	Pin3	Pin4	Pin7	Pin8	Pin9	Pin10
GPI 27	GPI 26	GPI 25	GPI 24	GPI 23	GPI 22	GPI 21	GPI 20
MSB							LSB

**8 out**

Pin1	Pin2	Pin3	Pin4	Pin7	Pin8	Pin9	Pin10
GPO 27	GPO 26	GPO 25	GPO 24	GPO 23	GPO 22	GPO 21	GPO 20
MSB							LSB

Address: 801H

**4 in/ 4 out**

Pin13	Pin14	Pin15	Pin16	Pin19	Pin20	Pin21	Pin22
GPI 27	GPI 26	GPI 25	GPI 24	GPO 23	GPO 22	GPO 21	GPO 20
MSB							LSB

**8 in**

Pin13	Pin14	Pin15	Pin16	Pin19	Pin20	Pin21	Pin22
GPI 27	GPI 26	GPI 25	GPI 24	GPI 23	GPI 22	GPI 21	GPI 20
MSB							LSB



8 out

Pin13	Pin14	Pin15	Pin16	Pin19	Pin20	Pin21	Pin22
GPI 27	GPI 26	GPI 25	GPI 24	GPI 23	GPI 22	GPI 21	GPI 20
MSB							LSB

## VGA Display Connector (CN22)

---

Pin	Signal	Pin	Signal
1	Red	9	GND
2	VCC	10	HSYNC
3	Green	11	GND
4	GND	12	VSYNC
5	Blue	13	GND
6	N.C	14	SCL
7	N.C	15	GND
8	SDA	16	N.C

## ATX Power Connector (CN27)

---

Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS_ON
5	GND	15	GND

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6	+5V	16	GND
7	GND	17	GND
8	POWER OK	18	-5V
9	+5VSB	19	+5V
10	+12V	20	+5V

### ATX Power 12V Connector (CN28)

Pin	Signal	Pin	Signal
1	GND	2	GND
3	+12V	4	+12V

## FDD & CD-ROM Installation

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We will guide you how to lock FDD and CD-ROM together. Please see the detail as follows.

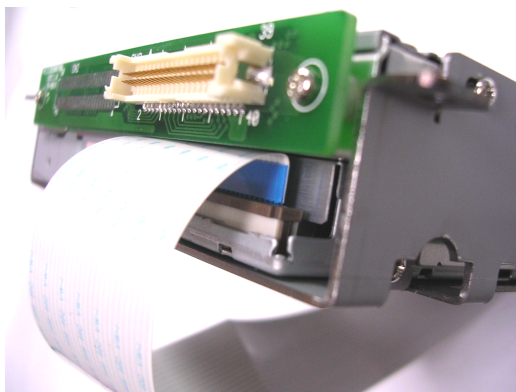
Step 1: Plug in FDD cable



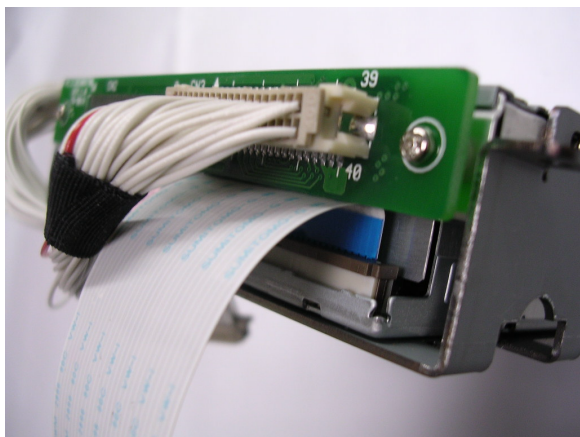
Step 2: Fasten the FDD and CD-ROM together with two brackets on the both sides symmetrically.



Step 3: Fasten the transferring bar with a pair of screws on the back of the CD-ROM.



Step 4: Plug in CD-ROM Cable



## HDD Installation

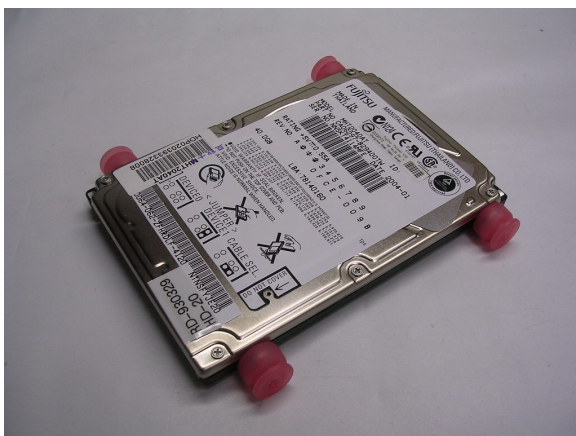
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In the following, we will guide you how to install HDD. Make sure that all parts are provided before you start the installation.

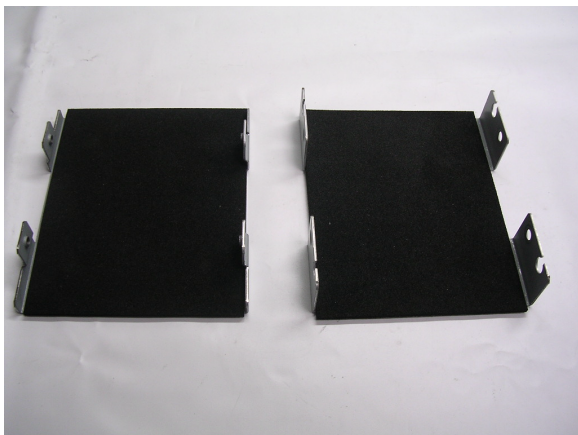
**Step 1:** Lock with the screws as the illustration shown.



**Step 2:** Cover the screws with four pieces of anti-vibration rubbers



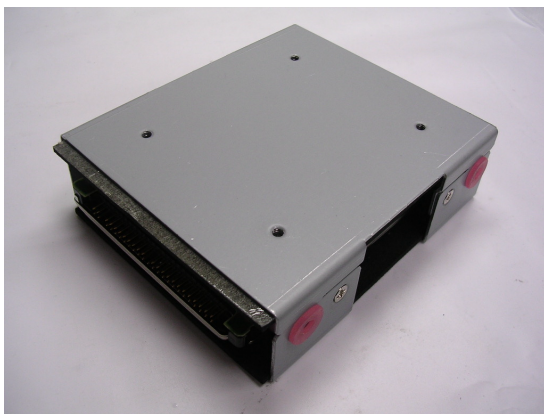
**Step 3:** There're two pieces of iron surfaces as the illustration shown.



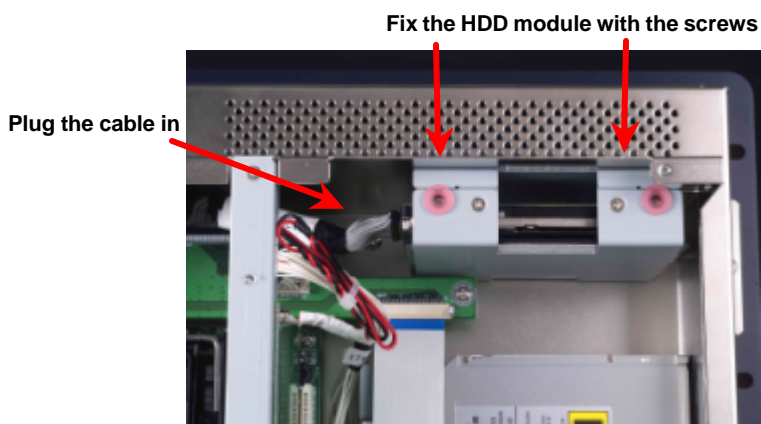
**Step 4:** Locate the HDD on one piece of the iron surface and fasten it with the screws.



**Step 5:** Cover it with another piece of iron surface and lock it with the screws.



**Step 6:** Fix the HDD module into the APC-8152 chassis and plug the cable in.

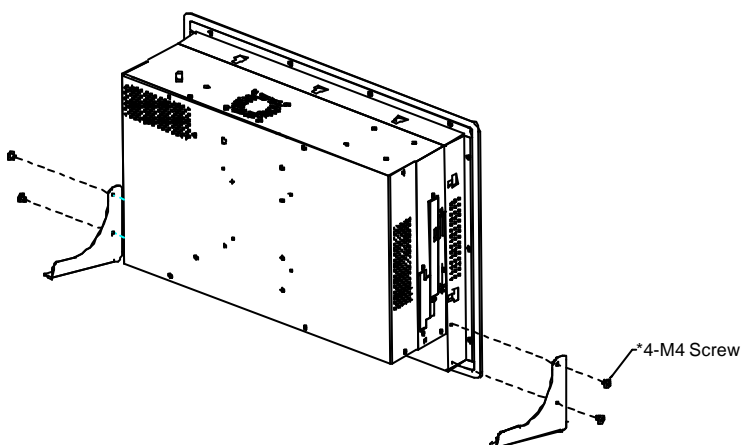


## Easy Stand Installation

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There're two L-shaped easy stands come with the product. Refer to the following illustration to install it.

1. Fix the L-shaped easy stands with the screws on both sides of the monitor. See the illustration below:





## Panel Mount Kit Installation

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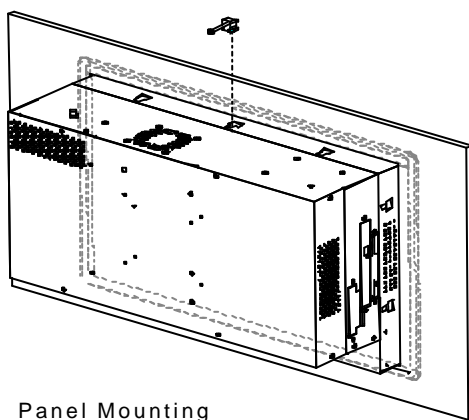
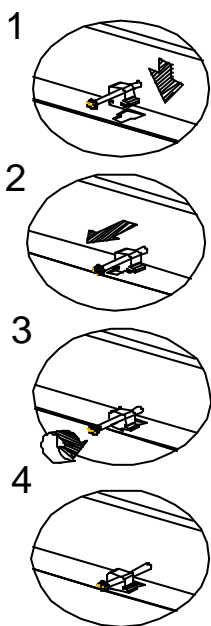
Some screw sets will come with the product for user to mount the monitor on the wall. See the steps below along with the illustration.

**Step 1:** Bore the screw into the screw nut.

**Step 2:** Locate the screw set into the hole around the monitor as the right illustration and pull it back to lock the screw set on the hole.

**Step 3:** Turn the screw around to make it tight until it is closed to the wall.

**Step 4:** Lock the monitor to the wall with the screw set which mean you' ve done a good job.

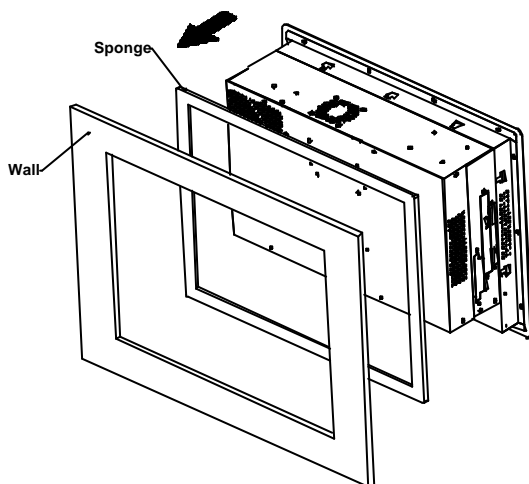


## Waterproof sponge Installation

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The following illustration shows you how to lodge the waterproof sponge in the back of the monitor set.

1. Lodge the Sponge in the back of the monitor set.
2. Locate the monitor set on the wall.



## **Chapter**

# **3**

## **BIOS Installation**

## System test and initialization

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These routines test and initialize board hardware. If the routines encounter an error during the tests, you will either hear a few short beeps or see an error message on the screen. There are two kinds of errors: fatal and non-fatal. The system can usually continue the boot up sequence with non-fatal errors. Non-fatal error messages usually appear on the screen along with the following instructions:

Press <F1> to RESUME

Write down the message and press the F1 key to continue the boot up sequence.

### System configuration verification

These routines check the current system configuration against the values stored in the CMOS memory. If they do not match, the program outputs an error message. You will then need to run the BIOS setup program to set the configuration information in memory.

There are three situations in which you will need to change the CMOS settings:

1. You are starting your system for the first time
2. You have changed the hardware attached to your system
3. The CMOS memory has lost power and the configuration

information has been erased.

The APC-8172 CMOS memory has an integral lithium battery backup for data retention. However, you will need to replace the complete unit when it finally runs down.

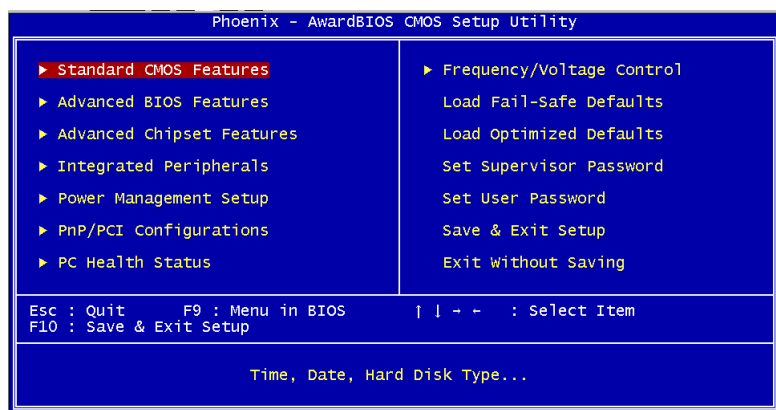
## Award BIOS Setup

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Awards BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off.

### Entering setup

Power on the computer and press <Del> immediately. This will allow you to enter Setup.



### **Standard CMOS Features**

Use this menu for basic system configuration. (Date, time, IDE, etc.)

### **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 performance.

### **Integrated Peripherals**

Use this menu to specify your settings for integrated peripherals. (Primary slave, secondary slave, keyboard, mouse etc.)

### **Power Management Setup**

Use this menu to specify your settings for power management. (HDD power down, power on by ring, KB wake up, etc.)

### **PnP/PCI Configurations**

This entry appears if your system supports PnP/PCI.

### **PC Health Status**

This menu allows you to set the shutdown temperature for your system.

### **Frequency/Voltage Control**

Use this menu to specify your settings for frequency/ voltage control.

### **Load Fail-Safe Defaults**

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

**Load Optimized Defaults**

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While AWARD has designated the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

**Set Supervisor/User Password**

Use this menu to set Supervisor/User Passwords.

**Save and Exit Setup**

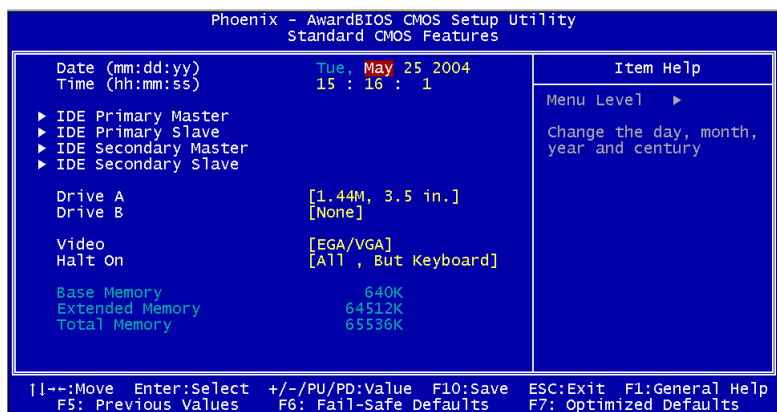
Save CMOS value changes to CMOS and exit setup.

**Exit Without Saving**

Abandon all CMOS value changes and exit setup.

## Standard CMOS Features

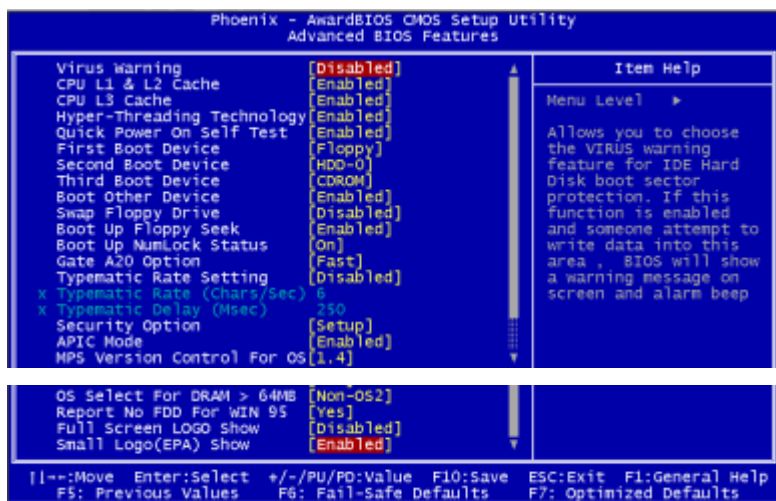
When you choose the Standard CMOS Features option from the INITIAL SETUP SCREEN menu, the screen shown below is displayed. This standard Setup Menu allows users to configure system components such as date, time, hard disk drive, floppy drive and display. Once a field is highlighted, on-line help information is displayed in the right box of the Menu screen.





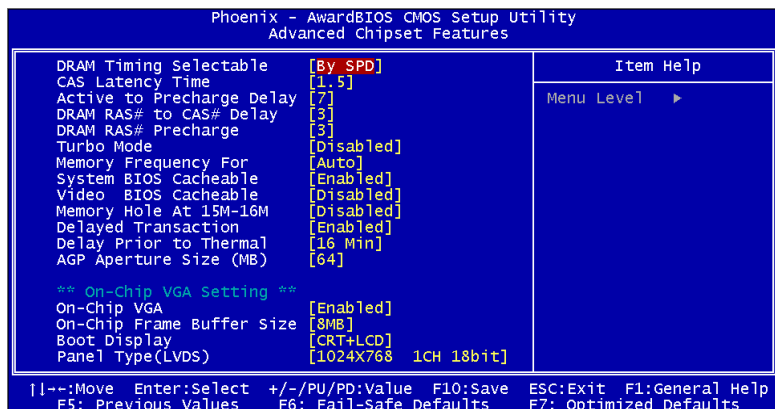
## Advanced BIOS Features

By choosing the Advanced BIOS Features option from the INITIAL SETUP SCREEN menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172



## Advanced Chipset Features

By choosing the Advanced Chipset Features option from the INITIAL SETUP SCREEN menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172.



### Attention:

The LCD signal may be turned off automatically after the VGA driver is installed, please press "Ctrl + Alt + F3" to enable LCD signal again.

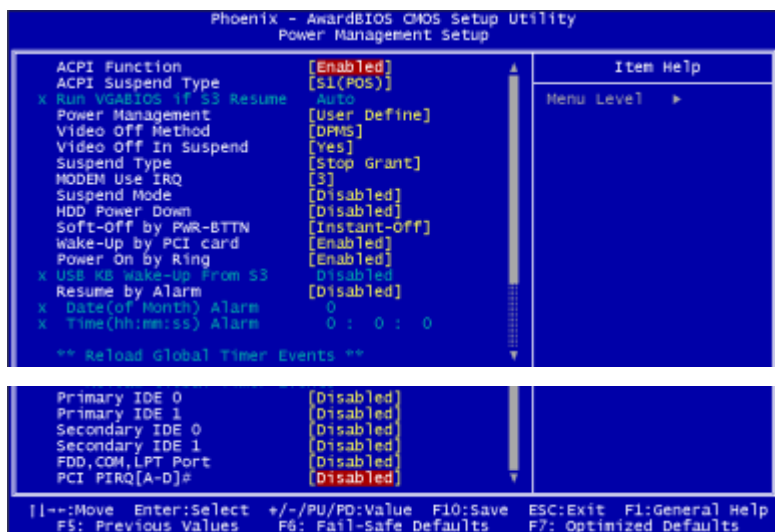
## Integrated Peripherals

By choosing the Integrated Peripherals from the INITIAL SETUP SCREEN menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172.



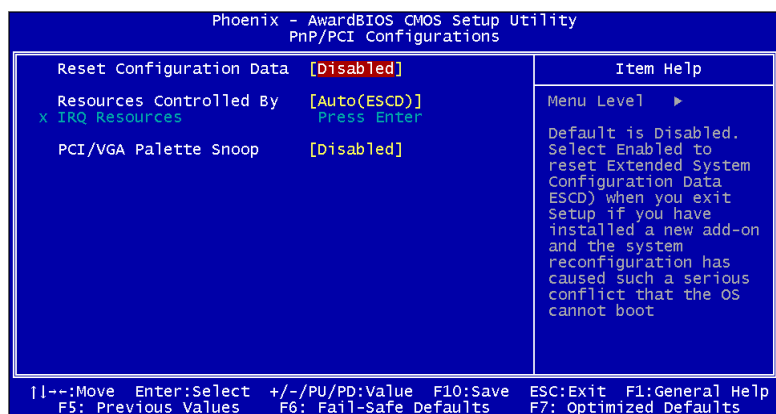
## Power management Setup

By choosing the Power Management Setup from the INITIAL SETUP SCREEN menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172.



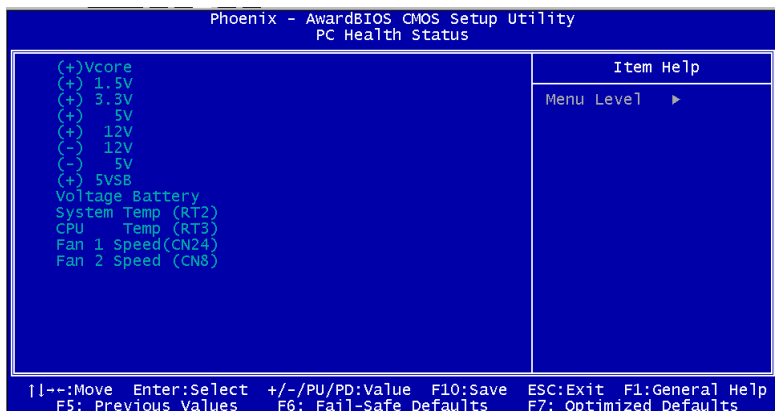
## PnP/PCI configuration

By choosing the PnP/PCI configurations from the Initial Setup Screen menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172.



## PC Health Status

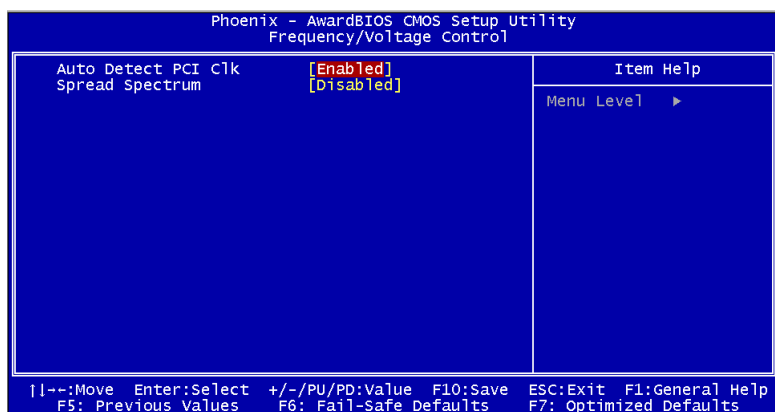
By choosing the PC Health Status from the Initial Setup Screen menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172.



## Frequency/Voltage control

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By choosing the Frequency/Voltage Control from the Initial Setup Screen menu, the screen below is displayed. This sample screen contains the manufacturer's default values for the APC-8172.

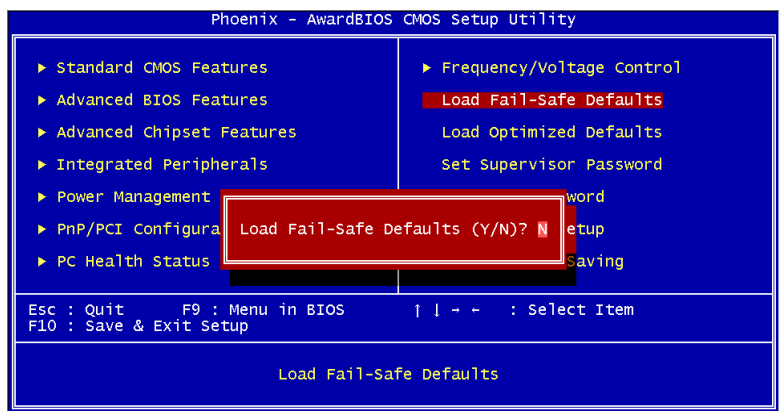


## Load Fail-Safe Defaults

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

Load Fail-Safe Default (Y/N)?

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



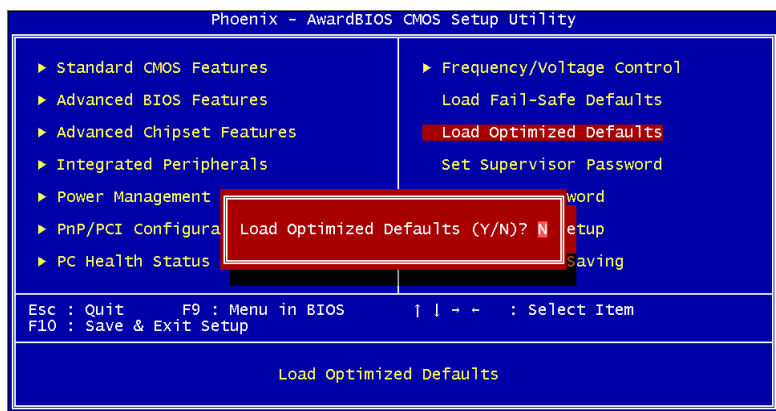


## Load Optimized Defaults

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

Load Optimized Defaults (Y/N)?

Pressing "Y" loads the default values that are manufacturer's settings for optimal performance system operations.



## Set Supervisor/User Password

You can set either SUPERVISOR or USER PASSWORD, or both of them. The difference between the two is that the supervisor password allows unrestricted access to enter and change the options of the setup menus, while the user password only allows entry to the program, but not modify options.

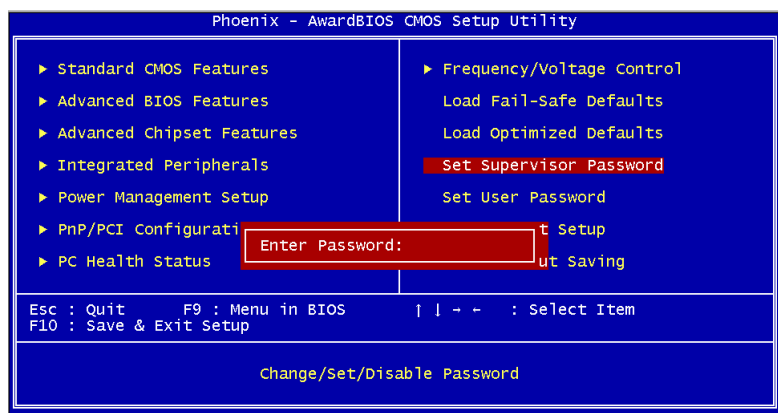
To abort the process at any time, press Esc.

In the Security Option item in the BIOS Features Setup screen, select System or Setup:

**System** Enter a password each time the system boots and whenever you enter Setup.

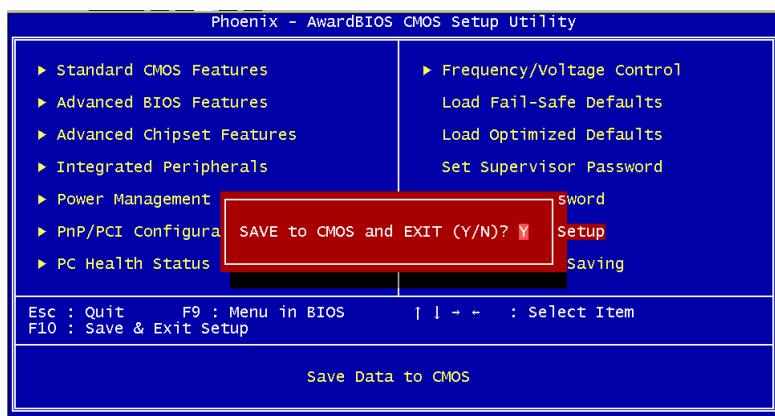
**Setup** Enter a password whenever you enter Setup.

*NOTE: To clear the password, simply press Enter when asked to enter a password. Then the password function is disabled.*



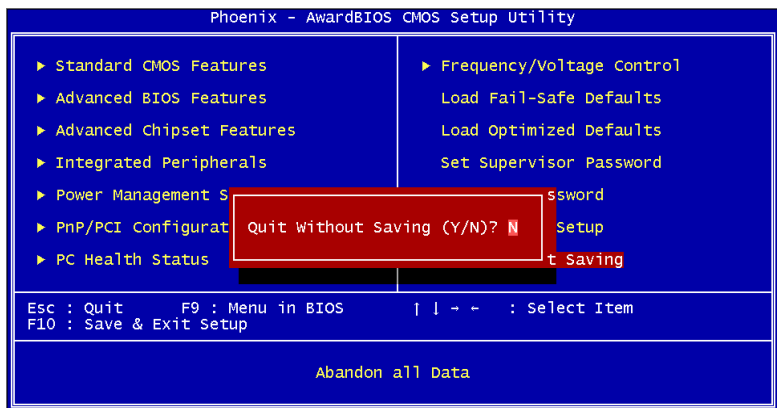
## Save & Exit Setup

If you select this option and press <Enter>, the values entered in the setup utilities will be recorded in the chipset's CMOS memory. The microprocessor will check this every time you turn on your system and compare this to what it finds as it checks the system. This record is required for the system to operate.



## Exit without saving

Selecting this option and pressing <Enter> allows you to exit the Setup program without recording any new value or changing old one.



## Limitations

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1. Due to Intel chipset limitation, when CMOS was set up to “LCD + CRT”, the LCD display will not support full-screen appearance.
2. Because of USB chipset limitation, front USB port and Card reader USB interface are linked together, when user “disable” front USB port ( USB Port 3 controller ) , the card reader must be forced to disable at same time.

## **Chapter**

# **4**

## **Driver Installation**

There are several installation ways depending on the driver package under different Operating System application.

**Please follow the sequence below to install the drivers:**

Step 1 – Install Intel INF Update For Windows 95-XP Driver

Step 2 – Install Intel 845G Graphic Driver

Step 3 – Install Intel Application Accelerator for Windows 95-XP  
Driver

Step 4 – Install Intel LAN Driver V6.4

Step 5 – Install Realtek AC97 codec Driver

Step 6 – Install Card Reader Driver

Step 7 – Install Touch Driver

USB 2.0 Drivers are available for download using Windows Update for both Windows XP and Windows 2000. For additional information regarding USB 2.0 support in Windows XP and Windows 2000, please visit [www.microsoft.com/hwdev/usb/](http://www.microsoft.com/hwdev/usb/).

For installation procedures of each driver, you may see the details in the following.

## Installation

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### **Applicable for Windows 2000/XP/9x/ME**

1. From the CD-ROM, select the desired component Driver folder, and then select the desired Operation System folder to double click on the Setup.exe icon. A driver installation screen will appear.

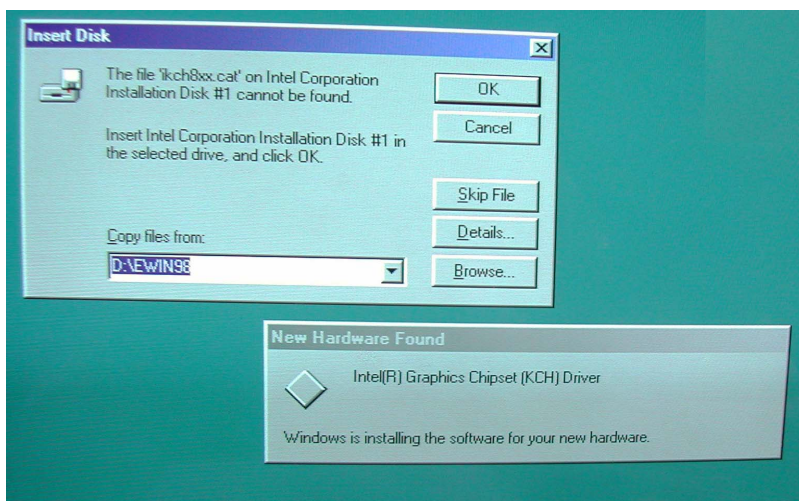
**Notice:**

1. Take VGA driver installation under Windows 98 for example, choose the corresponding folder depending on your OS
2. When installing the VGA driver under Windows 98, the

system will ask you to reboot the computer. During the installation process, it will appear the pop up window as following.



3. Please press ok and it will appear the pop up window as following.



4. Please change the path to the installation folder and search for the two files named as ikch8xx.cat and isb8xx.cat.
5. The LCD signal may be turned off automatically after the VGA driver is installed, please press "Ctrl+Alt+F3" to enable LCD signal again.
2. A driver installation screen will appear, please follow the onscreen instructions to install the driver in sequence and click

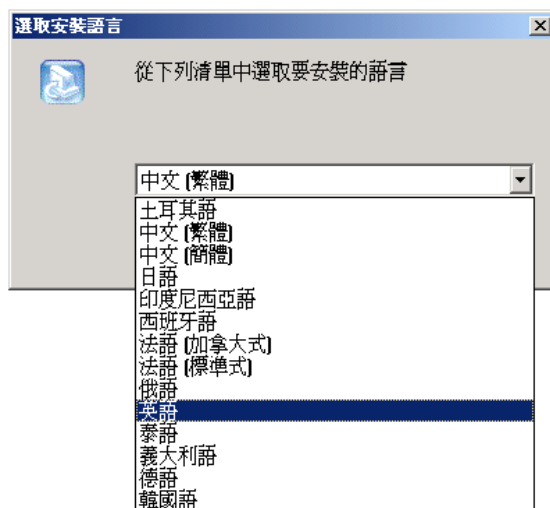


on the Next button.  
(Notice: In some cases the system will ask you to insert Windows 98 CD ROM and key in its path. Then click on the OK button to key in path.)

3. Click on the **Finish** button to finish installation process. And allow the system to reboot.

## Card Readers Driver Installation

1. Enter **Step 6 - Card Reader Driver** folder.
2. Double click on the **Setup exe.** file.
3. Language setting: Choose the highlighted item below to operate your system in English.



4. Follow the instruction that the window will show to finish the installation.

## Touch screen Driver Installation

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Touch screen Driver installation won't be included in this section. The instruction of touch screen driver will be attached in the CD-ROM as well.

Please see the following route:

Panel PC 20810000XX // Driver // Touch screen

Each touch screen driver folder will be attached to the user manual.

## Limitations

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1. For the sake of the bugs of card reader driver, two useless disk drives will appear: XD and Flash after installing drivers successfully. Please ignore the two useless disk drives.
2. The limitations you may need to notice when you start to install the driver. For the sake of USB4 and USB5 community of linkage, the card reader must be forced to disable when the users "disable" front USB port.