POS 5000
User Manual

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Manual Version 1.0

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Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrial power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.

2. Read these instructions carefully. Save these instructions for future reference.

3. Follow all warnings and instructions marked on the product.

4. Do not use this product near water.

5. Do not place this product on an unstable cart,stand,or table.The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation;to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered.The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface.This product should never be placed near or over a radiator or heat register,or in a built-in installation unless proper ventilation is provided.

7. This product should be operated from the type of power indicated on the marking label.If you are not sure of the type of power available, consult your dealer or local power company.

8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock.Never spill liquid of any kind on the product.

CE MARK

$C\epsilon$ This device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive".

FCC

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.

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same

or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.

The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centres for activation of the treatment, collection, recycling and disposal procedure. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.
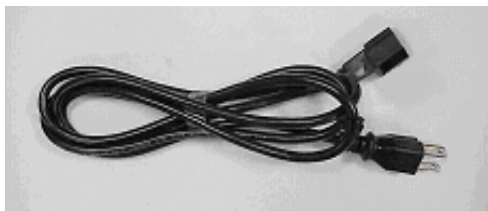
This product should not be mixed with other commercial wastes for disposal.

Table of Contents
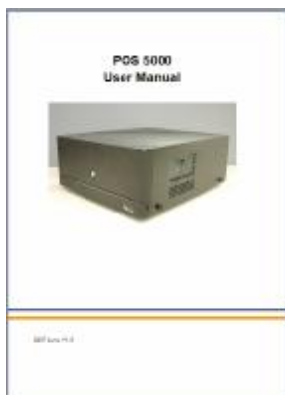
1. Item Checklist

Take the system unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton:

a. Power Cord

b. Driver CD

c. Manual

2. System View

2.1. Front View

USB

Power Button

HDD

Power
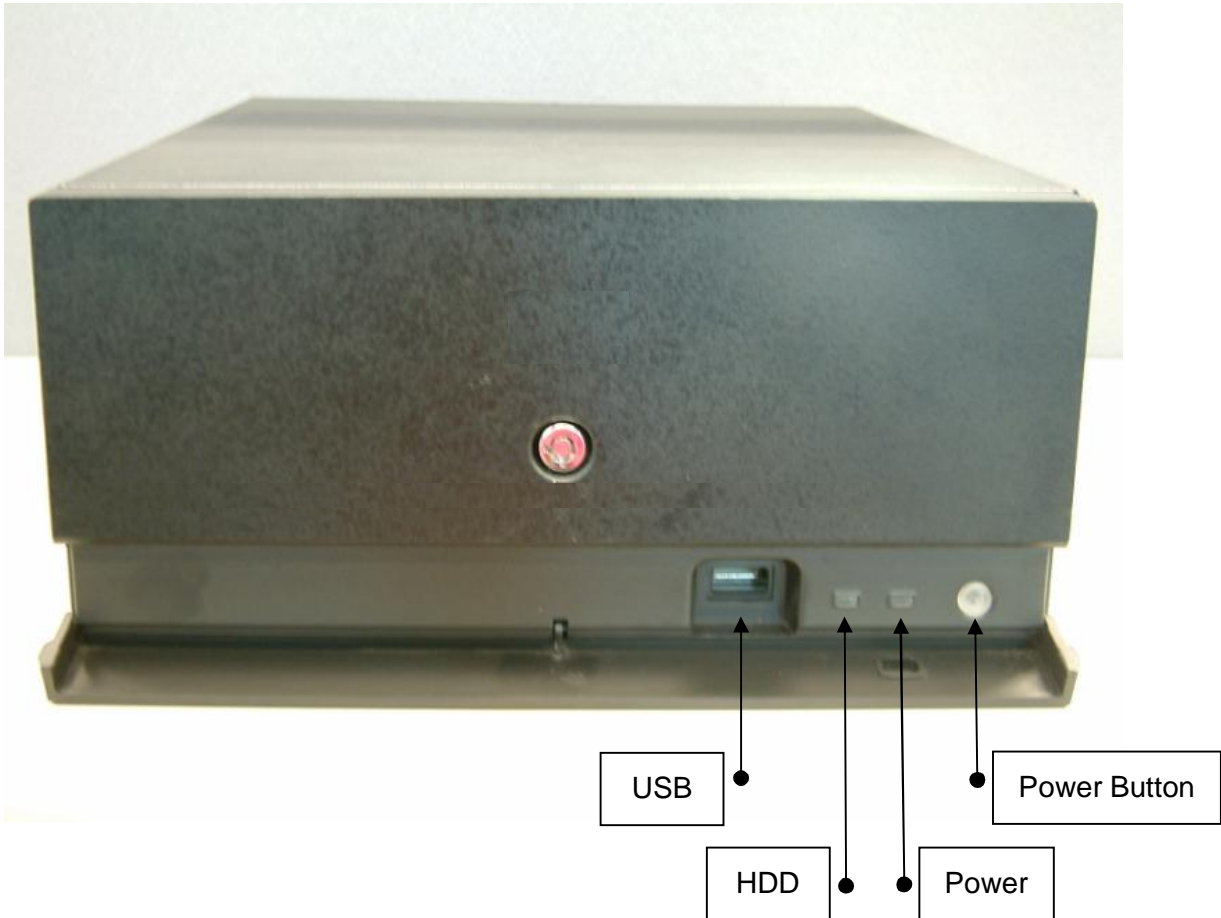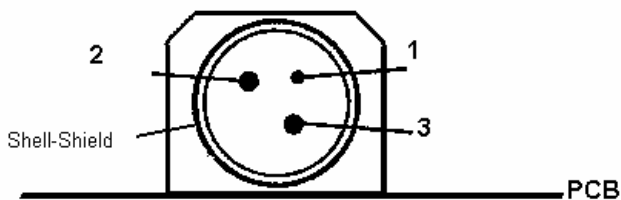
2.2. Rear View
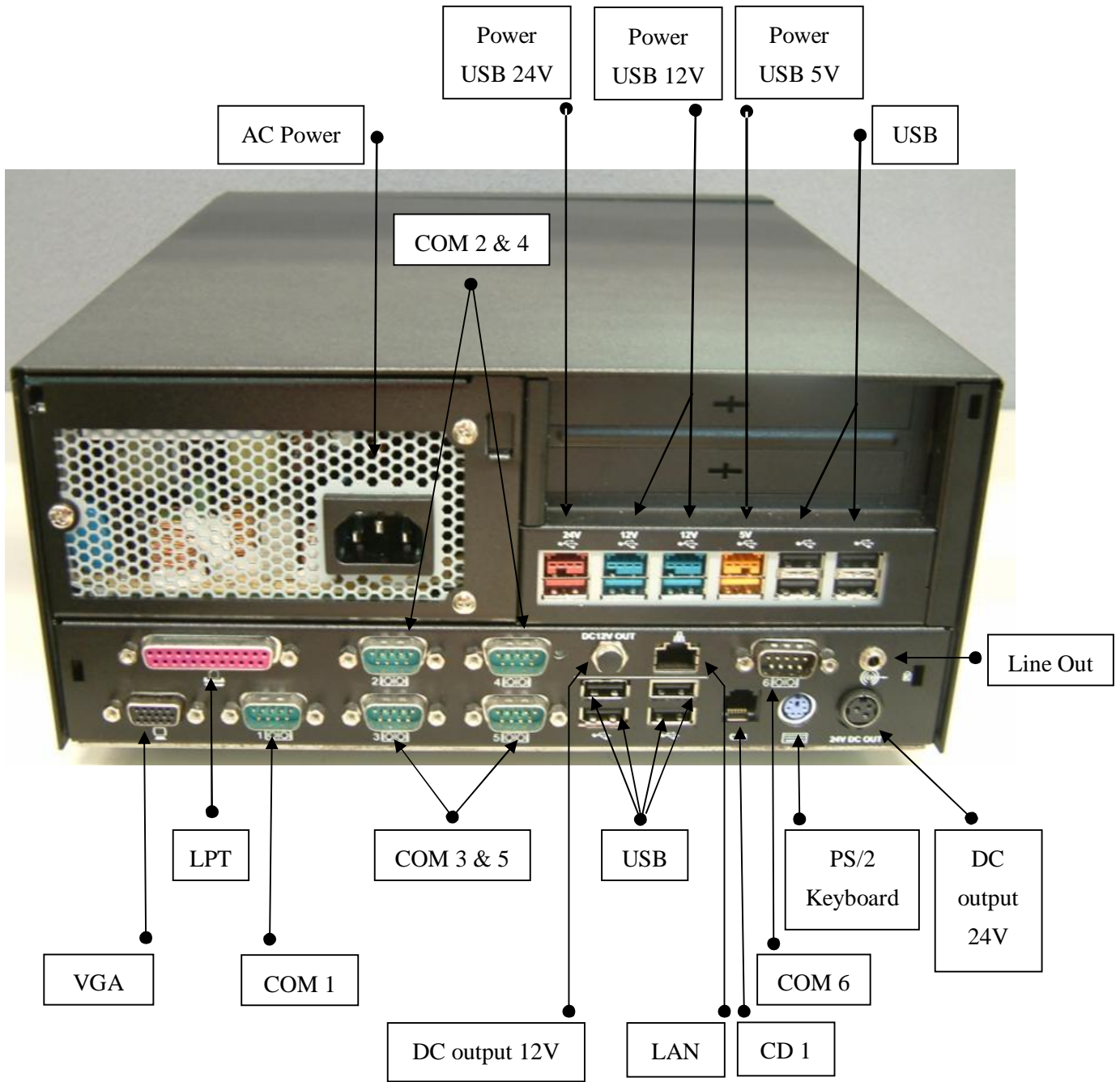
Note: The maximum current that can be drawn from each COM port is 500 mA.

DC output 24 V Pin Assignment

Pin	Assignment
1	NC
2	+ 24V DC
3	Ground

3. Driver Installation

3.1. Driver List

Folder/File	File Description
<CD>:\B99.htm	B99 Driver List
<CD>:\Common\INTEL\Chipset\i9xx	Chipset Driver
<CD>:\Common\INTEL\VGA\i94x	VGA Driver
<CD>:\Common\INTEL\VGA\RAID\ICH7R	SATA RAID Driver
<CD>:\Common\Ac97_codec\Realtek\ALC202A	Audio Driver
<CD>:\Common\Lan_driver\R8139_810x	LAN Driver

The following procedures are for Windows XP, other platforms are similar.

3.2. Chipset Driver Installation
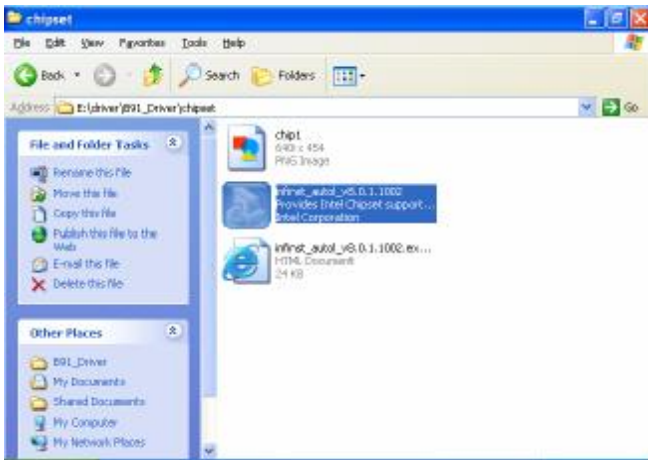
a. Double click "infinst_autol_v8.0.1.1002" on the My Computer window.
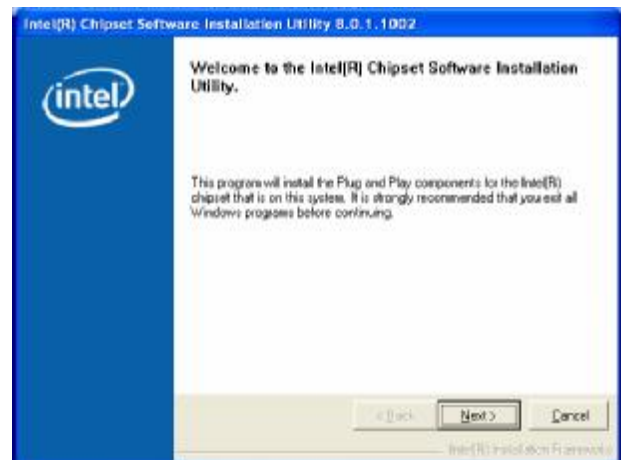
b. Click the "Next" button on the Welcome window.
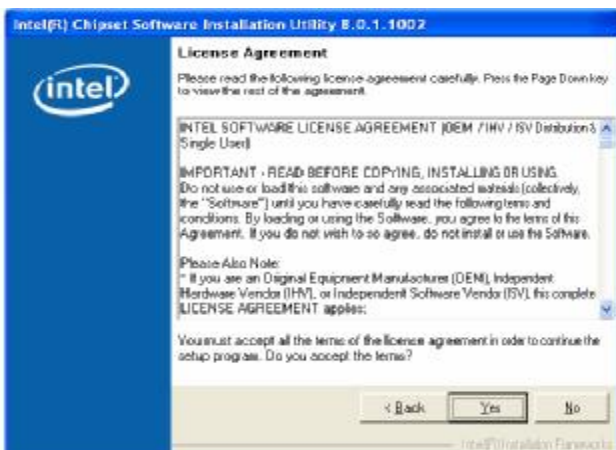
c. Click the "Yes" button on the License Agreement window.

d. Click the "Next" button on the Readme Information window.
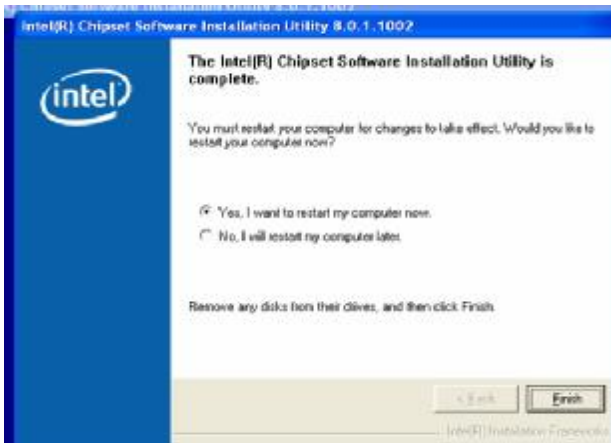
e. Click the "Finish" button and restart your system.

3.3. VGA Driver Installation
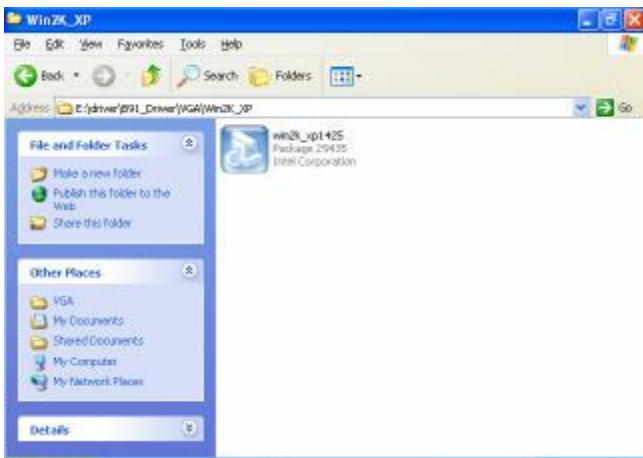
a. Double click "win2k_xp1425" on the My Computer window.
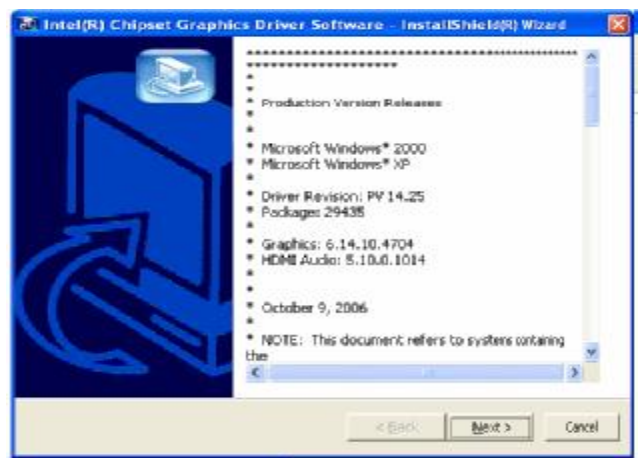
b. Click the "Next" button on the Welcome window.

c. Click the "Next" button on the Welcome window.
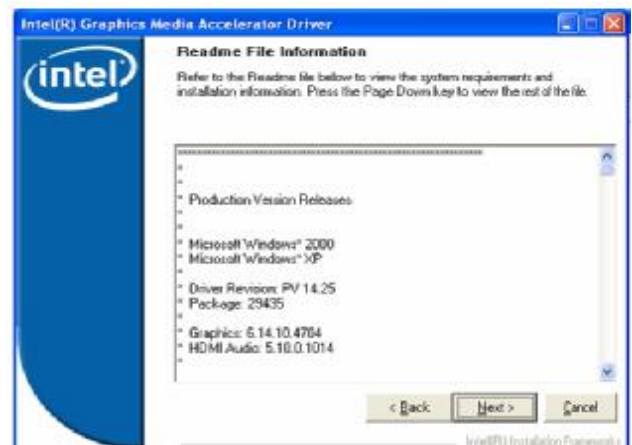
d. Click the "Next" button on the Readme Information window.
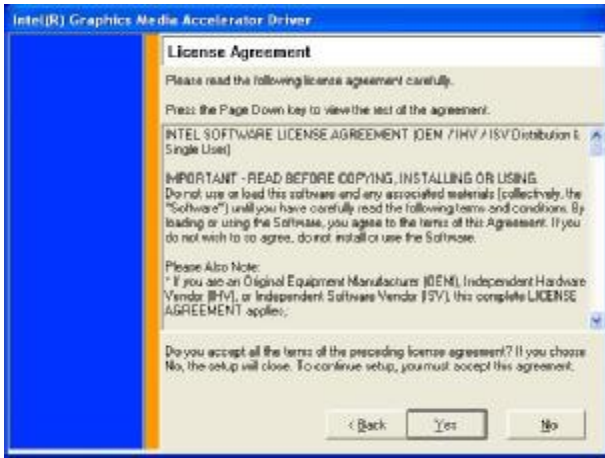
e. Click the "Yes" button on the License Agreement window.

f. Click the "Finish" button and restart your system.

3.4 Audio Driver Installation

a. Click "A3.71" on the My Computer window.

b. Double click "wdm_a371" on the My Computer window.
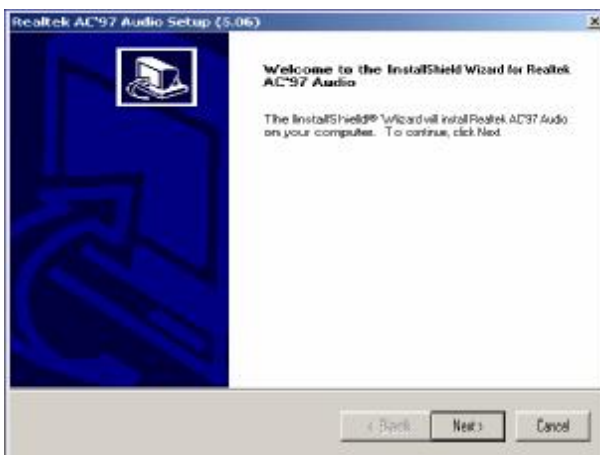
c. Click "Next" button on the Realtek AC'97 Audio Setup window.

d. Click "Yes" button on the Digital Signature Not Found window.
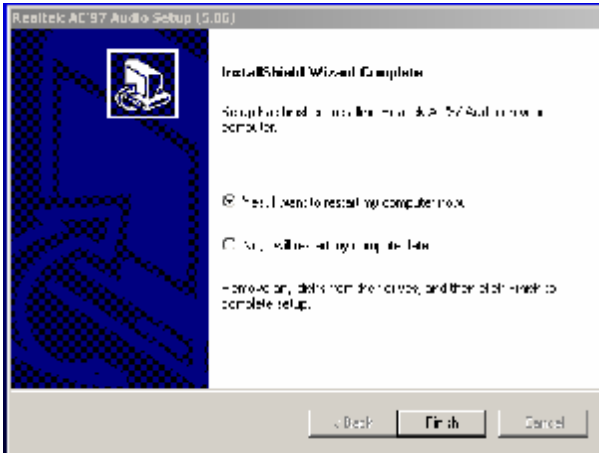
e. Click "Finish" button on the Realtek AC'97 Audio
    Setup window.

3.5 LAN Driver Installation
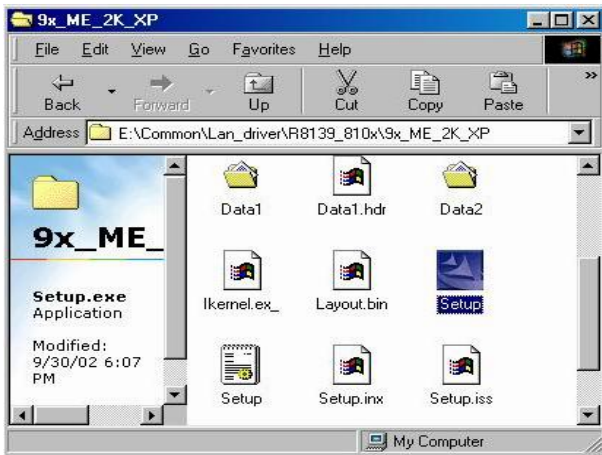
a. Double click "Setup" on the My Computer
   window.
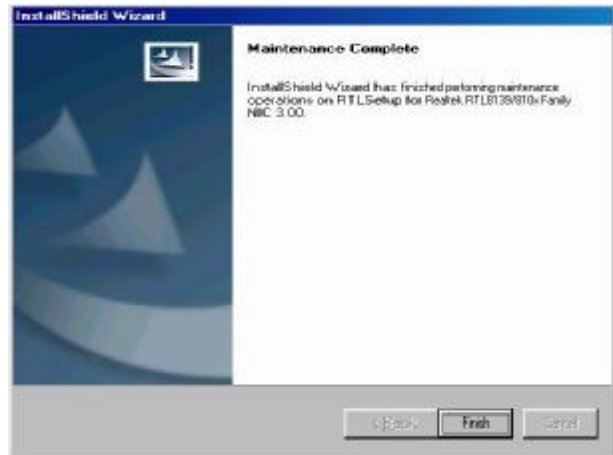
b. Click the "Finish" button on the
   Maintenance complete window.
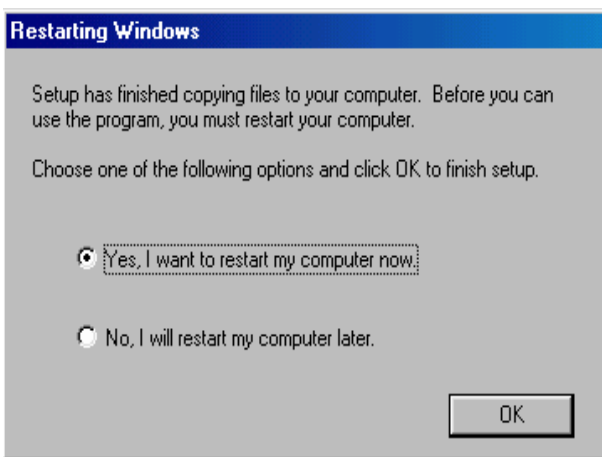
c. Click the "OK" button and restart your
   system.

3.6 SATA RAID Driver Installation

Before the SATA RAID driver installation, please refer to chapter 8.5 "Enabling RAID in the BIOS" and chapter 8.6 "RAID Volume Creation".

3.6.1. Create F6 driver disk

The SATA RAID Driver is for users who plan to install Windows on SATA HDDs with RAID functions. To use RAID functions, you need to make a SATA RAID Driver floppy disk before you install the operation system, such as Windows XP. If you do not plan to use RAID functions, it is not necessary to make a SATA RAID Driver floppy disk.

Connect a USB-FDD to the system, then follow below steps to make a SATA RAID Driver floppy disk.
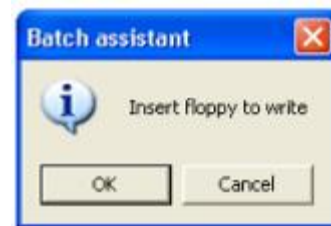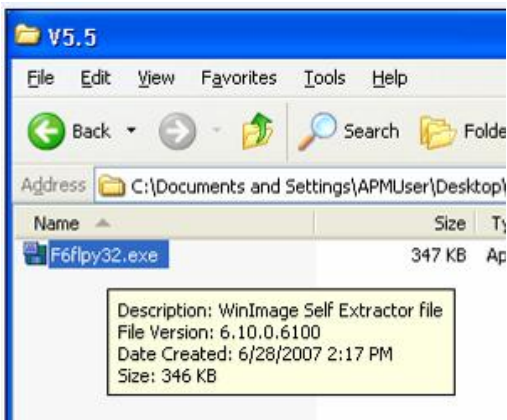
a. Double click "F6flpy32.exe" on the My computer window.

b. Insert a blank floppy disk into the FDD, and click on the "OK" button in the "Batch assistant" window.
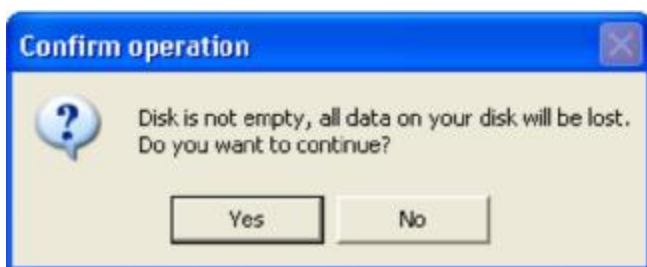
c. Click the "Yes" button on the "Confirm operation" window.
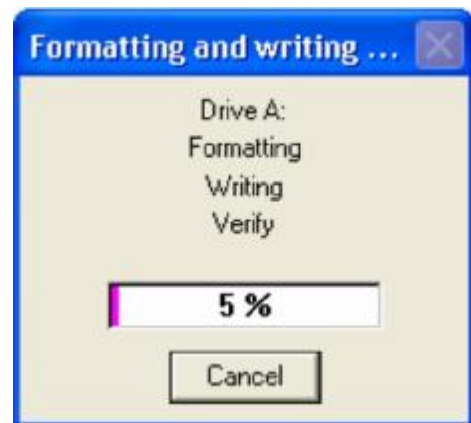
d. Wait for the driver disk to be written.

3.6.2. F6 driver installation

1. Press the **F6** key when prompted in the status line with the *Press F6 if you need to install a third party SCSI or RAID driver* message. This message appears at the beginning of Windows XP setup (during text-mode phase).

Note: Nothing will happen immediately after pressing F6. Setup will temporarily continue loading drivers. You will then be prompted with a screen asking you to load support for mass storage device(s).

2. Press the **S** key to **Specify Additional Device**.

3. You will be prompted to *Please insert the disk labeled Manufacturer-supplied hardware support disk into Drive A:* When prompted, insert the floppy disk containing the following files: IAAHCI.INF, IAAHCI.CAT, IASTOR.INF, IASTOR.CAT, IASTOR.SYS, and TXTSETUP.OEM and press the **Enter** key.

4. After pressing Enter, you should be presented with a list of available SCSI Adapters. Select your controller from the list. The up and down arrow keys can be used to scroll through the list as all controllers may not be visible. The list may include:

   o   Intel® 82801ER SATA RAID Controller

   o   Intel® 82801FR SATA RAID Controller

   o   Intel® 82801GR/GH SATA RAID Controller

   o   Intel® 82801GHM SATA RAID Controller

   o   Intel® 631xESB/632xESB SATA RAID Controller

   o   Intel® 82801R/DO/DH SATA RAID Controller

5. The next screen should confirm your selected controller. Press the **Enter** key again to continue.

6. At this point, you have successfully F6'ed in the Intel® Matrix Storage Manager driver and Windows setup should continue. Leave the floppy disk in the floppy drive until the system reboots. Windows setup will need to copy the files from the floppy again to the Windows installation folders. Once Windows setup has copied these files again, you should then remove the floppy diskette so that Windows setup can reboot as needed.

7. During Windows setup, create a partition and file system on the RAID volume as you would on any physical disk.

3.6.3. RAID Manager Utility installation
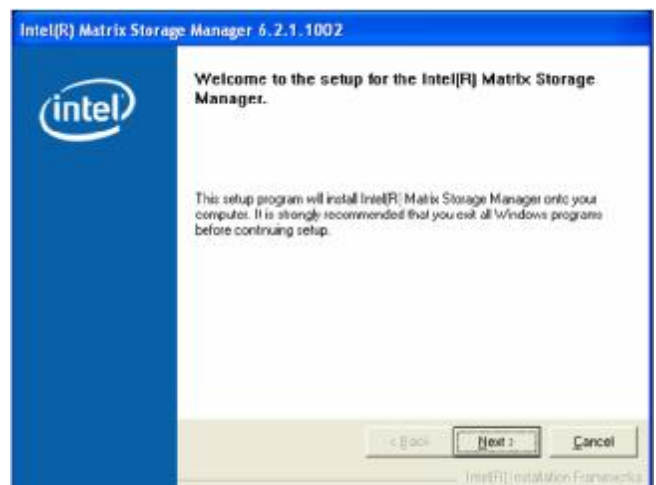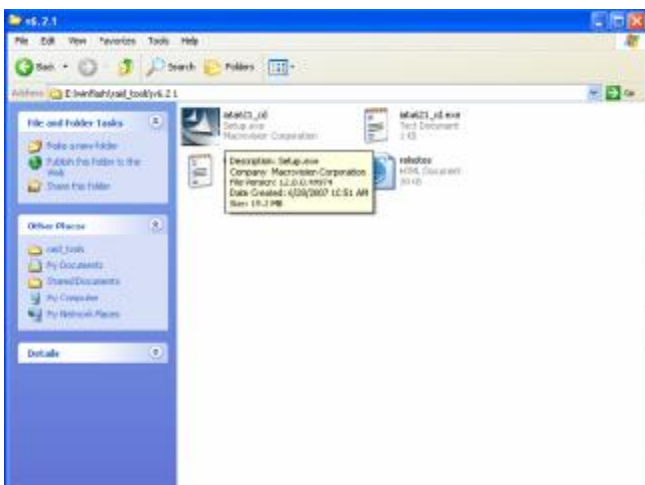
a. Select "iata621_cd" on the My Computer Window

b. Click the "Next" button on the Welcome window

c. Click the "Next" button on the Warning window

d. Click the "Yes" button on the License Agreement window
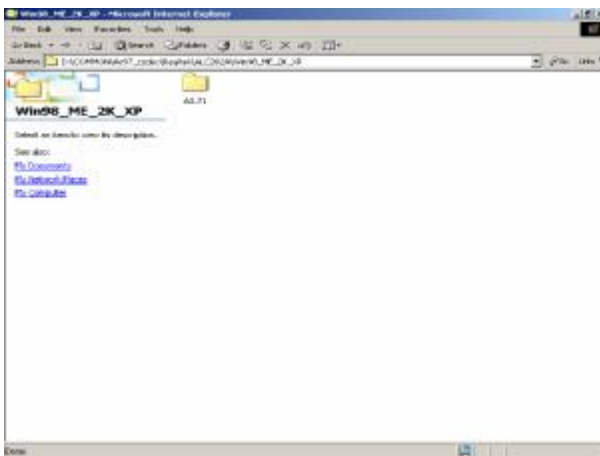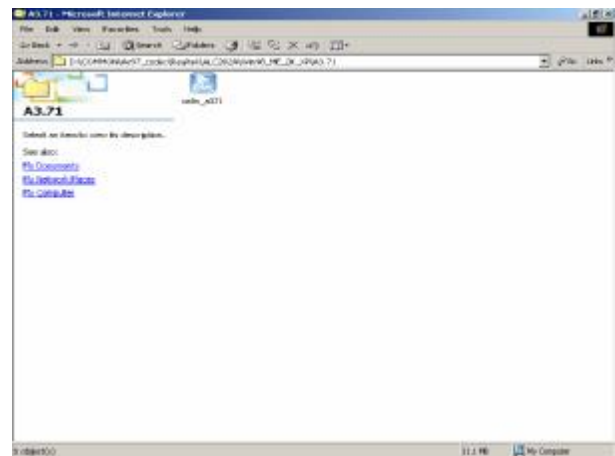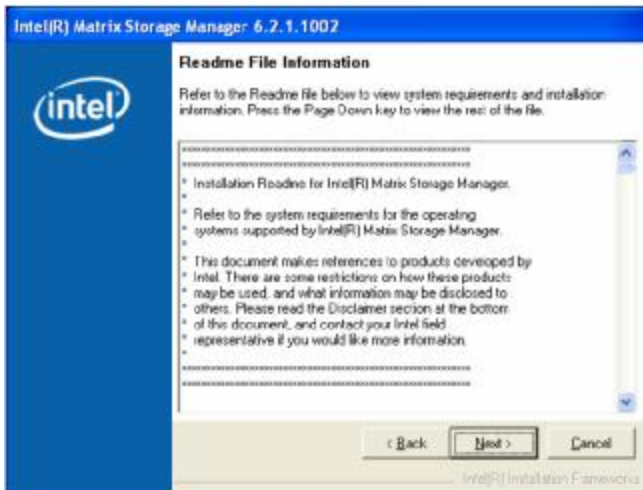

e. Click the "Next" button on the Readme window

f. Select " Yes, I want to restart my computer now" and click the " Finish" button to complete the installation

4. Peripherals Installation

4.1. Cash Drawer Installation

You can install a cash drawer through the Cash Drawer port. Please verify the pin assignment before installation.

4.1.1. Cash Drawer Pin Assignment

Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V/24V
5	DOUT bit1
6	GND

4.1.2. Cash Drawer Controller Register

The Cash Drawer Controller use one I/O address to control the Cash Drawer.

Register Location: 48Ch

Attribute: Read / Write

Size: 8 bits
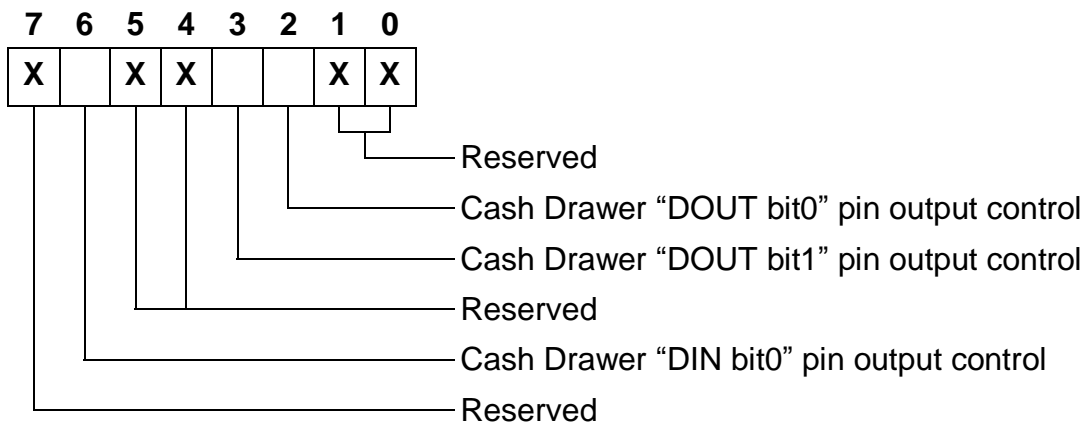
Bit 7: Reserved

Bit 6: Cash Drawer "DIN bit0" pin input status.

> = 1: the Cash Drawer closed or no Cash Drawer

> = 0: the Cash Drawer opened

Bit 5: Reserved

Bit 4: Reserved

Bit 3: Cash Drawer "DOUT bit1" pin output control.

> = 1: Opening the Cash Drawer

> = 0: Allow close the Cash Drawer

Bit 2: Cash Drawer "DOUT bit0" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 1: Reserved

Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

4.1.3. Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer
O 48C 01	Opening
O 48C 00	Allow to close
Ø Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by "DOUT bit0" pin control.	
Ø Set the I/O address 48Ch bit0 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 48C	Check status
Ø The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist.	
Ø The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.	

5. System Disassembly

5.1. Removing the Front Cover

a.   Use the key to unlock the front cover

b.   Lift the front cover up in the direction as shown by the arrows

c. Remove the front cover

5.2 Removing the Top Cover

To remove the top cover, please follow the steps as described in chapter 5.1.

a. Remove the screw (1)

b. Loosen the thumb screws (4) (two from each side) to release the top cover from the system.

5.3 Replacing the HDD

To replace the front cover, please follow the steps as described in chapter 5.1.

a. Loosen the thumb screw (1).

b. Loosen the locking bar (1).

c. Disconnect the cables (4).

d. Use your finger to pull the HDD holder out.

e. Remove the HDD.

f. Repeat the step d. and e. to remove the other HDD.

5.4. Replacing the DVD-ROM

To replace the front cover, please follow the steps as described in chapter 5.1.

a. Loosen the thumb screw (1)

b. Pull the DVD-ROM holder out

c. Disconnect the cables (2) to remove the
   DVD-ROM

5.5. Replacing the Power Supply

To replace the power supply, please follow the steps as described in chapter 5.1 and 5.2
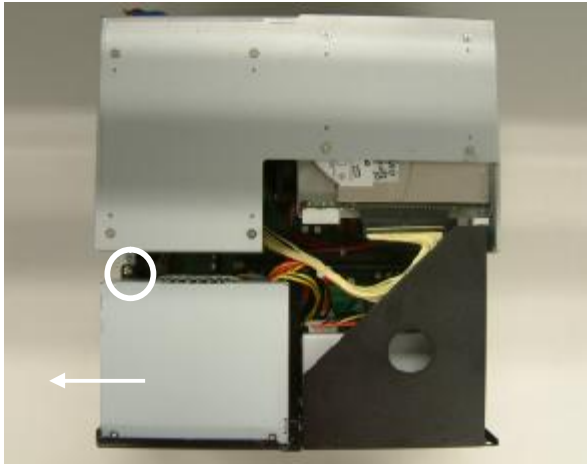
a. Remove the screw (1) and slide the power supply holder in the direction as shown by the arrow.

b. Disconnect the cables (3) to release the power supply holder from the system.

c. Remove the screws (3) to separate the power supply from the holder.

5.6. Replacing the I/O & PCI Extension Module

To replace the I/O and PCI extension module, please follow the steps as described in chapter 5.1 and 5.2

a. Remove the extension module by gently pulling it upwards, taking care not to damage the connector.
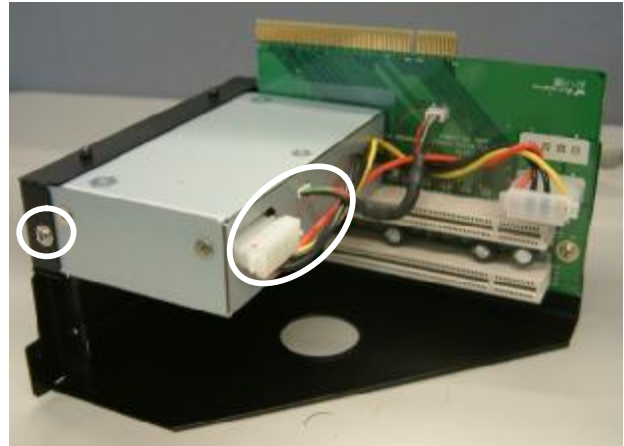
b. Disconnect the cables (3) and remove the I/O module from the holder.
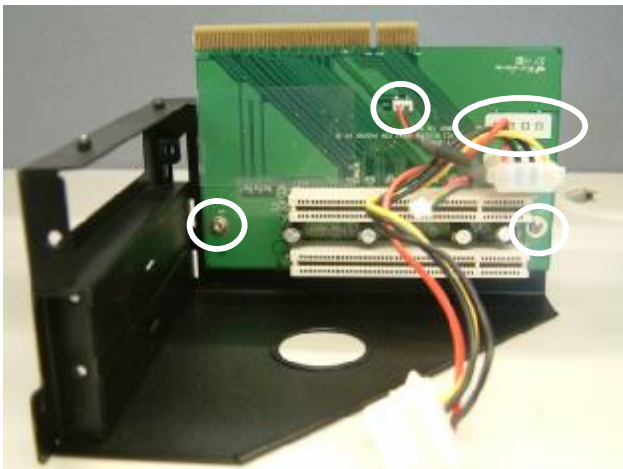
c. Disconnect the cables (2) and remove the screws (2) to release the PCI riser card from the holder.

5.7. Replacing the Memory

To replace the memory, please follow the steps as described in chapter 5.1, 5.2 and 5.5(a)

a. Use your finger to push the DIMM slot ejector clips into the down position.

b. Remove the memory module from the slot.

5.8. Replacing the Motherboard

To replace the motherboard, please follow the steps as described in chapter 5.1, 5.2, 5.5(a) and 5.6(a)
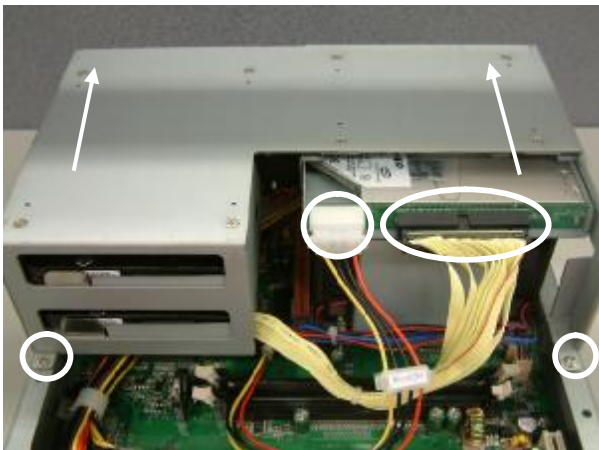
a. Disconnect the cables (2), remove the screws (2) and slide the HDD module in the direction as shown by the arrows to release the module from the motherboard Chassis
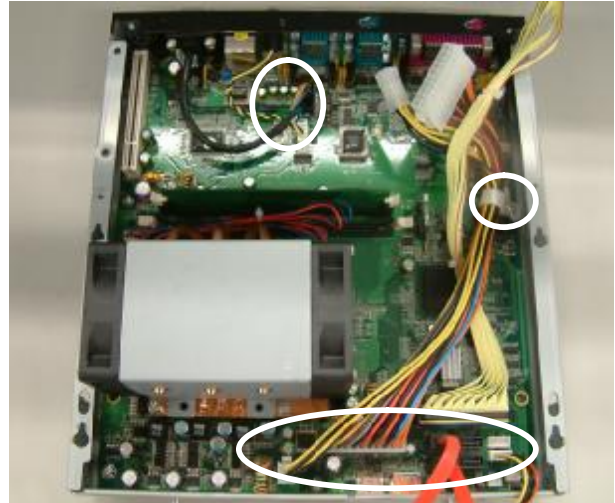
b. Remove the screw (1) and disconnect the cables (9) as shown in the picture.

c. Remove the screws (7)

d. Remove the hex screws (14) to release the motherboard from the chassis

6. Specification

Model Name	POS 5000
Mainboard	**B99**
CPU Support	Intel 352 Celeron D 3.2G FSB533Mhz L2 512K (Core 2 Duo)
Chipset	INTEL 945G + ICH7R
System Memory	Up to 4GB DDR ll RAM, 2 RAM-DIMM
Storage	
HDD	2 x 3.5" SATA
ODD	1 x PATA Slim CD-ROM / CD-RW / DVD-ROM Drive Bay (optional)
Expansion	
PCI Slot	2 slots support from riser card
External I/O Ports	
Front I/O	
USB	1
Power Button	1
Rear I/O	
PS/2 Keyboard	1
USB	4 (USB1~ 4)
Powered Serial/COM	2 (COM1 / COM2)
Serial_RS232	3 (COM3, COM4, COM5)
Serial_RS485/RS422)	1 (COM6)
Parallel	1
Giga LAN	1
VGA	1 (DB15)
Line- out	1
Cash Drawer Port	1
DC 24V output	1
DC 12V output	1
Control / Indicators	
Power Button	1 (Front)
LED_HDD/Power	2
Internal Header	
USB	4 (USB5~8)
Power Button	1 (pin header)
Peripherals (special feature)	
Second HDD (hot swap)	80GB (optional)
RAID	Supports RAID 0, RAID 1 for 2 SATA HDDs

Option Module (Connectivity)	
Powered USB (12V)	2
Powered USB (24V)	1
Powered USB (5V)	1
USB	4
Environment	
EMC & Safety	FCC Class A, CE, LVD
Operating Temperature	5°C~ 35°C (41°F ~95°F)
Storage Temperature	-10°C~ 60°C (14°F ~140°F)
Storage Temperature	10% - 90% RH non condensing
Storage Humidity	10% - 90% RH non condensing
Dimension (W x D x H) System Box	270 x 300 x 120mm
Power Supply	230W

7. Jumper Settings

B99 Motherboard
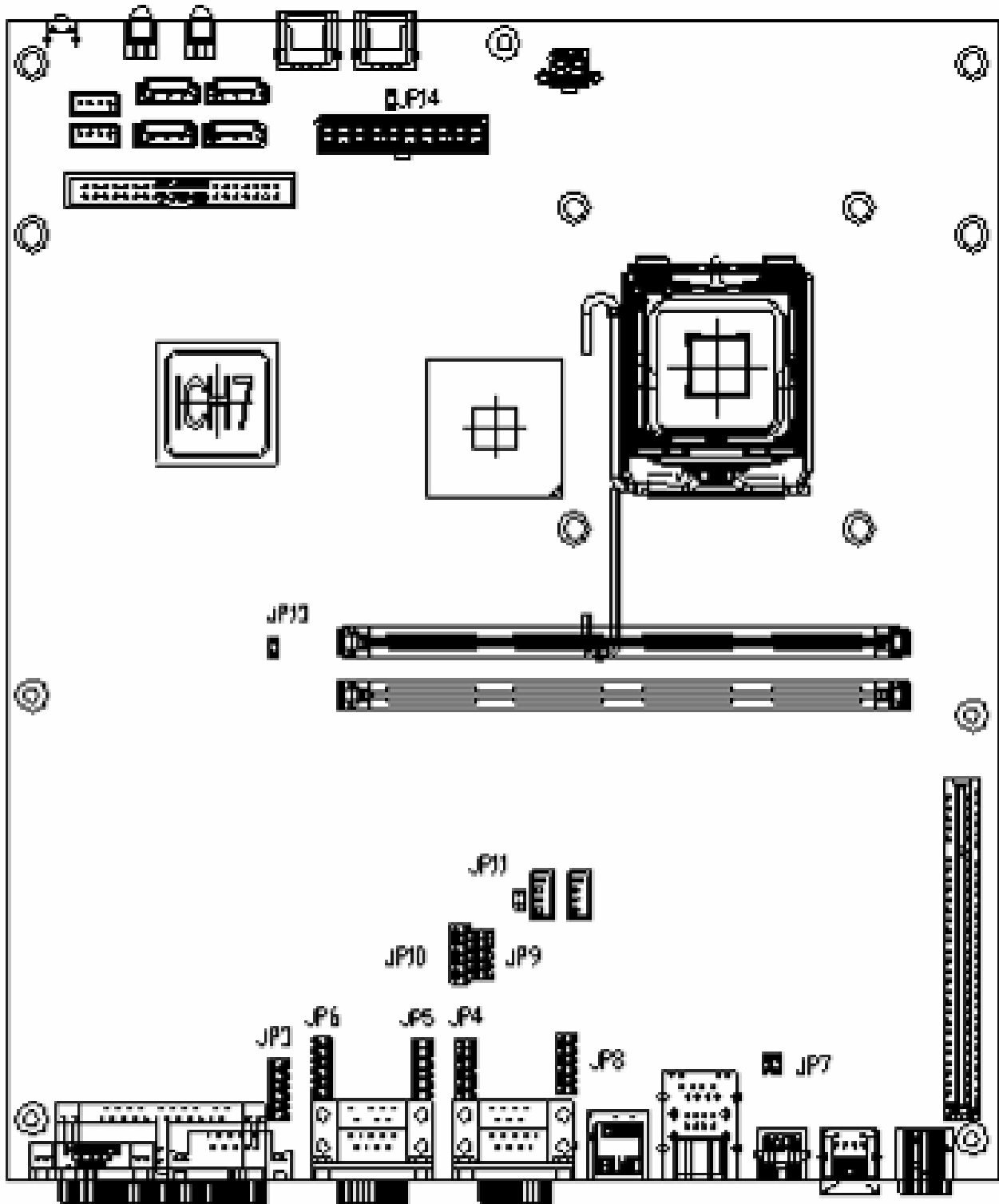
1. COM 1 Power Setting

Pin	Function	JP4 (SHORT)
1	◎DCD#	1-2
	VCC	3-4
	+12V	5-6
9	◎RI#	7-8
	+5V	9-10
	+12V	11-12

2. COM 2 Power Setting

Pin	Function	JP8 (SHORT)
1	◎DCD#	1-2
	VCC	3-4
	+12V	5-6
9	◎RI#	7-8
	VCC	9-10
	+12V	11-12

3. COM 3 Power Setting

Pin	Function	JP6 (SHORT)
1	◎DCD#	1-2
	VCC	3-4
	+12V	5-6
9	◎RI#	7-8
	VCC	9-10
	+12V	11-12

4. COM 4 Power Setting

Pin	Function	JP5 (SHORT)
1	◎DCD#	1-2
	VCC	3-4
	+12V	5-6
9	◎RI#	7-8
	VCC	9-10
	+12V	11-12

5. COM 5 Power Setting

Pin	Function	JP3 (SHORT)
1	◎DCD#	1-2
	VCC	3-4
	+12V	5-6
9	◎RI#	7-8
	VCC	9-10
	+12V	11-12

6. COM 6 RS232/ 485/ 422 Setting

Function	◎RS232	RS485	RS422
JP9 (1-2)	v		
JP9 (3-4)	v		
JP9 (4-6)		v	
JP9 (5-7)	v		
JP9 (7-8)		v	
JP9 (9-10)			v
JP10 (1-2)			
JP10 (3-4)	v		
JP10 (5-6)		v	v
JP10 (7-8)			v
JP10 (9-10)			v
JP10 (10-11)			v

7. 2ND Display Power Setting

Function	JP11 (SHORT)
+12V	1-2
◎NC	1

8. CMOS Operation Mode Setting

Function	JP13 (SHORT)
◎COMS Normal	N/C
COMS Reset	1-2

9. Power Mode Setting

Function	JP14 (SHORT)
◎ATX Power	N/C
AT Power	1-2

10. Cash Drawer Power Setting

Voltage	JP7 (SHORT)
◎+12V	1-2
+ 24V	3-4

Note:

OPEN   SHORT

8. RAID BIOS Settings

8.1. BIOS Setup Utility

The BIOS setup defines how the system is configured. You need to run this program the first time you configure this product. You may need to run it again if you change the configuration. You need to connect a PC keyboard to the keyboard connector to run the BIOS setup utility.

8.2. Starting the BIOS Setup

1. Turn on or reboot this product.
2. Press the DEL key immediately after the product is turned on, or press the DEL key when the following message is displayed during POST (the Power on Self-Test).
   Press DEL to enter SETUP.
3. The main menu of the BIOS setup is displayed.
4. If the supervisor password is set, you must enter it here.

8.3. When a Problem Occurs

If, after making and saving system changes with the Setup utility, you find that this product no longer boots, start the BIOS setup and execute the following.
Load Optimized Defaults

8.4. BIOS Main Menu

When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the Enter key to accept and enter the sub-menu.

Note: The BIOS menu below is from B99 RAID BIOS version B990V10.BIN. If you have a different BIOS version, the contents of the menu may different.

```
                 Phoenix - AwardBIOS CMOS Setup Utility

   ▶ Standard CMOS Features         ▶ PC Health Status

   ▶ Advanced BIOS Features           Load Optimized Defaults

   ▶ Advanced Chipset Features        Set Supervisor Password

   ▶ Integrated Peripherals           Set User Password

   ▶ Power Management Setup            Save & Exit Setup

   ▶ PnP/PCI Configurations           Exit Without Saving


   Esc : Quit      F9 : Menu in BIOS      ↑ ↓ → ←   : Select Item
   F10 : Save & Exit Setup

                 Time, Date, Hard Disk Type...
```

Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

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

Advanced Chipset Features

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

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management setup

Use this menu to specify your settings for power management.

PnP/PCI Configurations

This entry appears if your system supports Plug and Play and PCI Configuration.

PC health status

Displays CPU, System Temperature, Fan Speed, and System Voltages Value.

Load Optimized Defaults

Use this menu to load the BIOS default values, i.e., factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the option to change these defaults to meet their needs.

Set Supervisor Password

Enables you to change, set, or disable the supervisor or user password.

Set Password

Change, set, or disable the password. It allows you to limit access to the system and to the setup, or just to the setup.

Save & exit setup

Save CMOS value changes to CMOS and exits setup.

Exit without saving

Ignores all CMOS value changes and exits setup.

8.5. Enabling RAID in the BIOS

Enter the BIOS Setup program by pressing the **DEL** key.

```
          Phoenix - AwardBIOS CMOS Setup Utility

  ▶ Standard CMOS Features          ▶ Frequency/Voltage Control

  ▶ Advanced BIOS Features             Load Optimized Defaults

  ▶ Advanced Chipset Features          Set Supervisor Password

  ▶ Integrated Peripherals             Set User Password

  ▶ Power Management Setup             Save & Exit Setup

  ▶ PnP/PCI Configurations            Exit Without Saving

  ▶ PC Health Status


  Esc : Quit                       ↑ ↓ → ←    : Select Item
  F10 : Save & Exit Setup


                Onboard IO, IRQ, DMA Assignment...
```

Select **Integrated Peripherals,** and then press "Enter"

```
          Phoenix - AwardBIOS CMOS Setup Utility
                   Integrated Peripherals

   Onboard Lan Boot ROM        [Disabled]          Item Help
   Onboard LAN device          [Enabled]
   PCI device #1 (AD18)        [Enabled]       Menu Level   ▶
   PCI device #2 (AD19)        [Enabled]
   Init Display First          [PCI Slot]
 ▶ OnChip IDE Device           [Press Enter]
 ▶ Onboard Device              [Press Enter]
 ▶ SuperIO Device              [Press Enter]









 ↑↓→←:Move   Enter:Select  +/-/PU/PD:Value   F10:Save   ESC:Exit   F1:General Help
            F5:Previous Values               F7: Optimized Defaults
```

Select **OnChip IDE Device**, and then press "Enter"

Phoenix – AwardBIOS CMOS Setup Utility
OnChip IDE Device

IDE HDD Block Mode	[Enabled]	Item Help
IDE DMA transfer access	[Enabled]	
On-Chip Primary PCI IDE	[Enabled]	Menu Level ▶
IDE Primary Master PIO	[Auto]	
IDE Primary Slave PIO	[Auto]	
IDE Primary Master UDMA	[Auto]	
IDE Primary Slave UDMA	[Auto]	
On-Chip Secondary PCI IDE	[Enabled]	
IDE Secondary Master PIO	[Auto]	
IDE Secondary Slave PIO	[Auto]	
IDE Secondary Master UDMA	[Auto]	
IDE Secondary Slave UDMA	[Auto]	
*** On-Chip Serial ATA Setting ***		
SATA Mode	[RAID]	
On-Chip Serial ATA	[Auto]	
SATA PORT Speed Settings	[Disabled]	
PATA IDE Mode	[Primary]	
SATA Port	P1,P3 is Secondary	

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values   F7: Optimized Defaults

Select **SATA Mode**, and then press "Enter"

Phoenix – AwardBIOS CMOS Setup Utility
OnChip IDE Device

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values   F7: Optimized Defaults
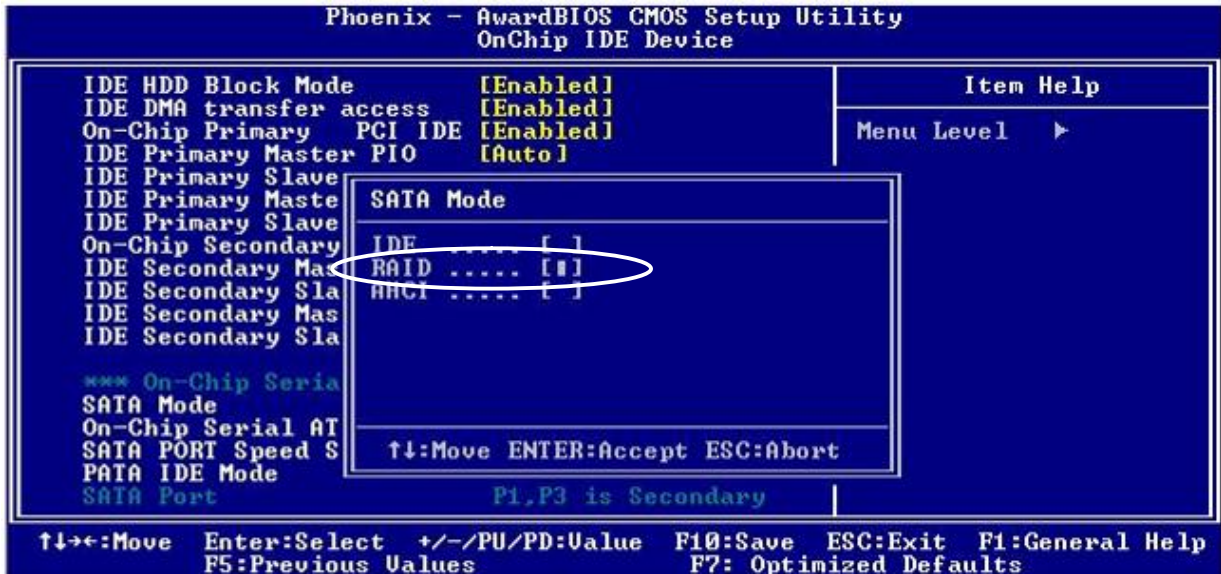
Select **RAID**, and then press "Enter"

Press the **F10** key to save the BIOS settings and exit the BIOS Setup program.

8.6. RAID Volume Creation

1. When the Intel® Matrix Storage Manager option ROM status screen appears during POST, press the **Ctrl** and **i** keys at the same time to enter the Intel Matrix Storage Manager option ROM user interface.

2. Select **Option 1: Create RAID Volume** and press the **Enter** key.

3. Use the up or down array keys to select the RAID level and press the **Enter** key.

4. Unless you have selected RAID 1, use the up or down arrow keys to select the strip size and press the **Enter** key.

5. Press the **Enter** key to select the physical disks.

6. Select the appropriate number of hard drives by using the up or down arrow keys to scroll through the list of hard drives and pressing the **Space** key to select the drive. When finished, press the **Enter** key.

7. Select the volume size and press the **Enter** key.

8. Press the **Enter** key to create the volume. At the prompt, press the **Y** key to confirm volume creation.

9. Select **Option 4: Exit** and press the **Enter** key. Press the **Y** key to confirm exit.