Shuttle

Model name: Xyy0yy

(cy ould be 0~9, A~Z or blank to denote different

color of enclo

C H A P T E R ▼ O N E

GETTING TO KNOW THE BASICS

This chapter introduces the features and

components of the computer.

Performance Features

- **High Performance Processor with Napa Chipset**
  The notebook PC is equipped with a powerful Mobile Intel Pentium M dual-core processor. Together with the latest Napa chipset and technologies, the system offers very advanced PC performances.

- **Advanced Graphic Engine**
  The system is built with ATI Mobility M54-P with 128MB DDR2 dedicated frame buffer. The PCI-Express high-end graphic engine offers excellent graphic performance for the most demanding professionals or gamers. The advanced graphic chip also incorporates a hardware-based motion-compensation engine, which gives you smooth MPEG video playback. DirectX 9 graphics capability also adds realism to PC games.

- **Built-in Multiple Card Reader**
  There is built-in 4-in-1 card reader to access many of the portable media formats (SD Card, MS Card, MMC Card, and MS-Pro Card).

- **Gigabit Ethernet Port**
  The system provides built-in 10/100/1000Mbps Ethernet network adapter for high bandwidth network connection.

- **Firewire (IEEE1394 / 1394a) and USB2.0 ports**
  In addition to a full array of built-in I/O ports, the computer offers IEEE1394 for ultra high-speed connection to high bandwidth digital video devices and USB2.0 ports to connect to any USB-based peripheral devices.

- **Wireless LAN**
  The internal Wireless LAN module allows your notebook to connect wirelessly to other 802.11-enabled systems, devices, or network.
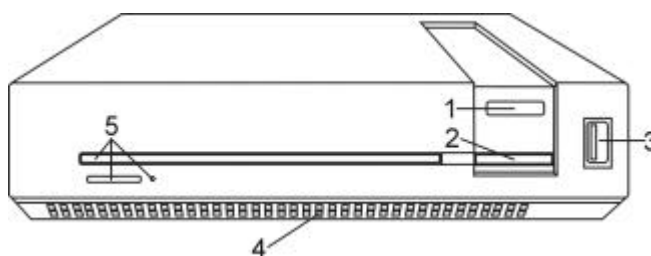
Package Content

Please take a moment to make sure you have the following content in the box.

[Proposal: Will take a live black and white picture of the actual items.]

System At A Glance

Front View

> ✳ **Warning:** Do not place any heavy objects on the top of computer. This may damage the unit

1. **Power / Suspend Button**

   The power/suspend button turns the computer on and off and it also acts as a system suspend key. Press momentarily to turn on the system. Press and hold for at least 4 seconds to turn off the system. How this key behaves can be defined in [Start > Settings > Control Panel > Power Options > Advanced] menu. Press the power / suspend button again to return from the suspend mode. (See Chapter 3 for more details on system suspend function.)

2. **4-in-1 Card Reader**

   The 4-in-1 Card Reader supports SD Card, MS Card, MMC Card, and MS-Pro Card.

3. **USB2.0 Port (x1)**

   The Universal Serial Bus (USB2.0-compliant) port allows you to

connect a wide variety of devices to your computer at a rate of up to 480 Mbps. This port conforms to the latest USB2.0 plug-and-play standards.

4. **Ventilation Grill**
The fan grill is where air is exchanged to dissipate the internal heat. Do not block this airway completely.

5. **Optical Drive and Disk Eject Button and Manual Eject Key Hole**
If your computer comes with the Combo drive, DVD-RW, DVD+RW, or DVD-Dual drive, you may save data onto a CD-R / CD-RW or DVD RW disc. Press the eject button to eject the disk tray. The manual eject keyhole allows you to manually eject a jammed disk.

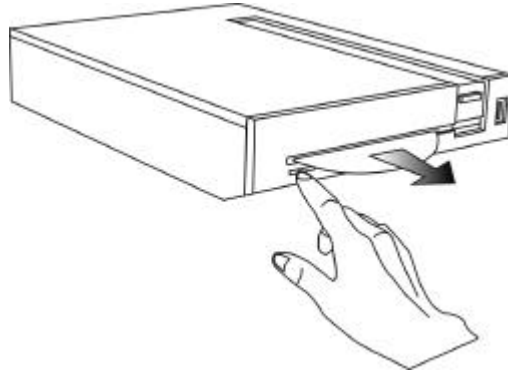This is a tray-less (slot-in) type of Optical Drive.
To Load a CD:
Gently insert the disc into the slot opening and XPC will automatically load-in the rest of the disc.
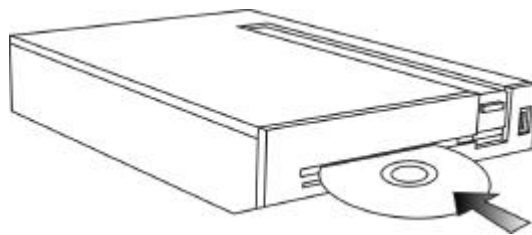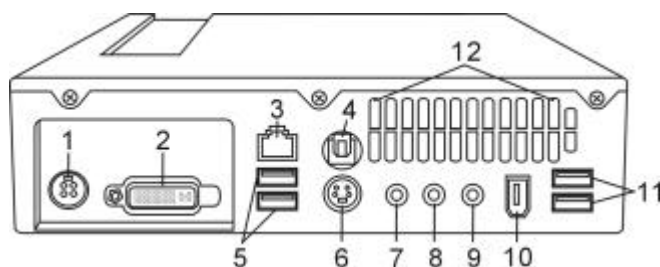

To Eject a CD:
Push the Eject Button and the disc will be ejected automatically.

Rear Views

Warning: Do not block the Fan Grill outlet. Place the machine on hard surface only. The bottom case may get very hot.

---

1. **Power Jack (DC-in)**
   The DC-out jack of the AC Adapter connects here and powers the computer.

2. **DVI-I Port**
   The DVI-I video output port is for connecting the external LCD monitor or projector.

3. **Ethernet / LAN Port**
   The port connects to a network hub via the RJ-45 cable and also conforms to 10/100/1000Base-TX transmission protocol.

4. **S/PDIF-out Jack**
   You may connect the S/PDIF output to an external DTS, AC3, or PCM sound processor / decoder in your home stereo system.

5. **USB2.0 Port (x2)**

   The Universal Serial Bus (USB2.0-compliant) port allows you to connect a wide variety of devices to your computer at a rate of up to 480 Mbps. This port conforms to the latest USB2.0 plug-and-play standards.

6. **TV (S-Video) Port**

   The S-Video port permits you to redirect the screen output to a television set or any analog video playback device. This TV Port is copyright protected; when DVD movie is played, the output is scrambled to prevent analog recording.

7. **Stereo Headphone / Line-out Jack**

   The stereo headphone jack (3.5-mm diameter) is where you connect to the headphones or external speakers.

8. **Audio Line-in Jack**

   The Audio Line-in jack (3.5-mm diameter) is where you connect an external audio input source such as a CD Player.

9. **Microphone Jack**

   The microphone jack (3.5-mm diameter) is where you connect a microphone.

10. **Firewire / IEEE1394 / 1394a Port** 1394

    This is a high-speed serial data port. You may connect any Fire-wire-ready device to this port.
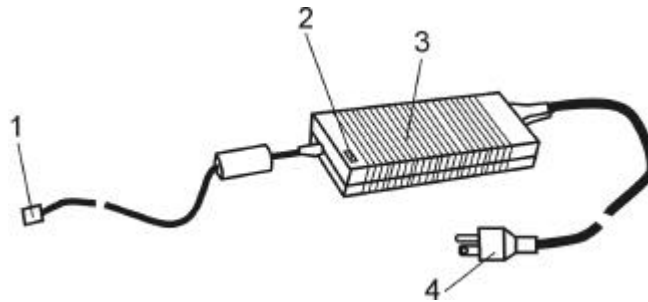
11. **USB2.0 Port (x2)**

    The Universal Serial Bus (USB2.0-compliant) port allows you to connect a wide variety of devices to your computer at a rate of

up to 480 Mbps. This port conforms to the latest USB2.0 plug-and-play standards.

12. Ventilation Grill

The fan grill is where air is exchanged to dissipate the internal heat. Do not block this airway completely.

AC Adapter

1. **DC-out Connector**
    The DC-out connector docks to the power jack (DC-in) on the computer.

2. **LED Lamp**
    The LED lamp appears green when the unit is plugged into a valid AC source.

3. **Adapter**
    The adapter converts alternating current into constant DC voltage for the computer.

4. **AC Plug**
    The AC plug plugs to the AC wall outlet.

Warning: Make sure that you are using a standard 3-prong AC plug with a ground pin. If not, you may feel a slight tingling sensation when you touch the computer's metal parts such as the I/O ports. This is caused by a leakage current when the AC adapter is not properly grounded via the ground pin. However, the amount of leakage current is within the safety regulation and is not harmful to the human body.

Using the Vertical Stand

The vertical stand allows you to mount the system vertically; however, you must position the system in a correct manner to prevent thermal-related issue. The following illustration shows you how to correctly position the system onto the stand.

This side UP!

Vertical Stand

USB Port on the bottom side
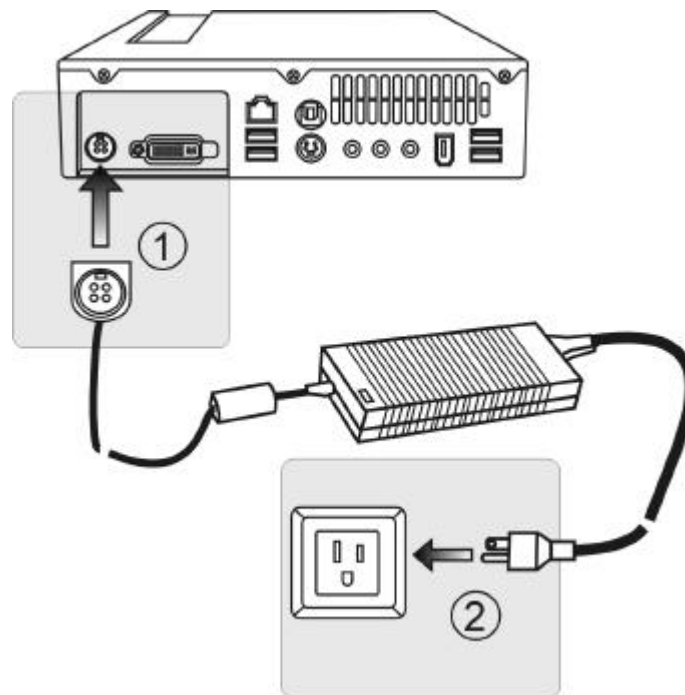
Incorrect mount
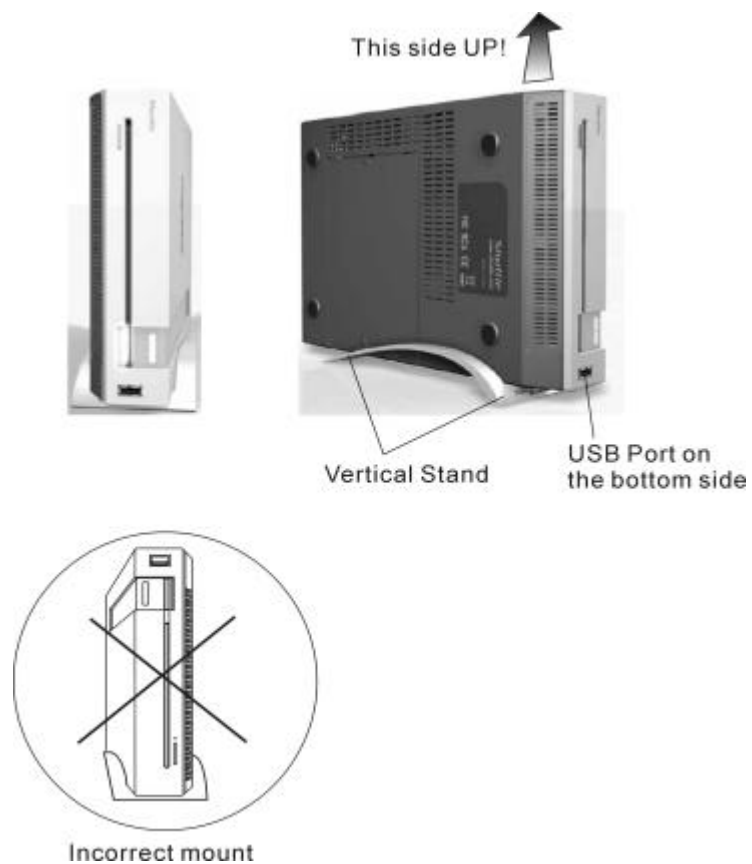
Connecting the System

Before turning on the system, you need to connect the following devices to the XPC first. Please follow the steps according to the illustrations.

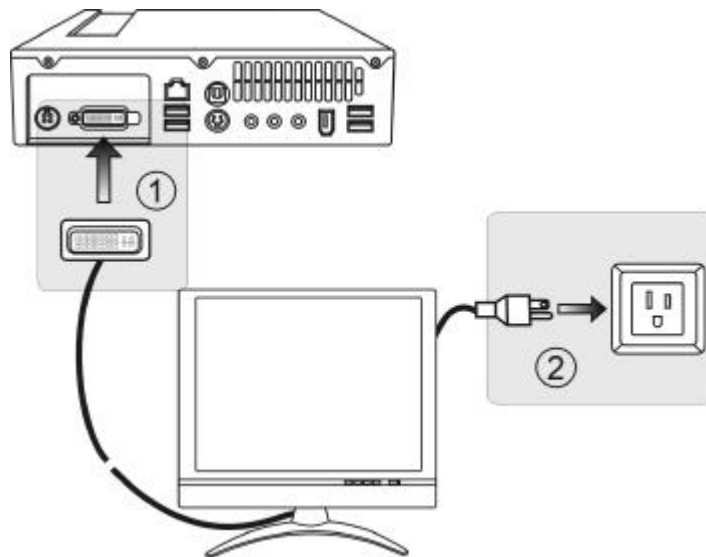## 1. Connecting Power

Note: The DC-in connector will only fit in a certain orientation. Make sure the LED on the AC Adapter is lit. Do not press the Power (ON) button yet.

2. Connecting Monitor

Note: The DVI connector will only fit in a certain orientation.

3. Connection Keyboard and Mouse
   Note: You may plug the USB keyboard and Mouse to any of the available USB port on the system.
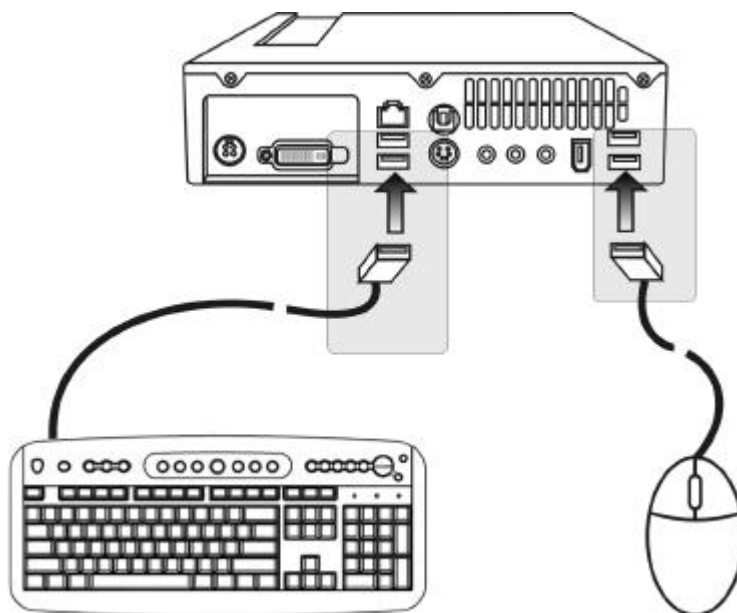
4. Connecting Speaker and Microphone

(Picture not yet ready.)

5. Connecting to LAN

Note: The following illustration shows you how XPC may be
connected to the Network via a Router. If you do not have a
Router and/or do not need one, you may connect the Ethernet
Port directly to the Network Ethernet Port via an Ethernet
(RJ45-type) cable. Please refer to the *Ethernet Section* later in
this chapter to learn more about cabling restrictions.

Ethernet Cable

Router

WAN Port
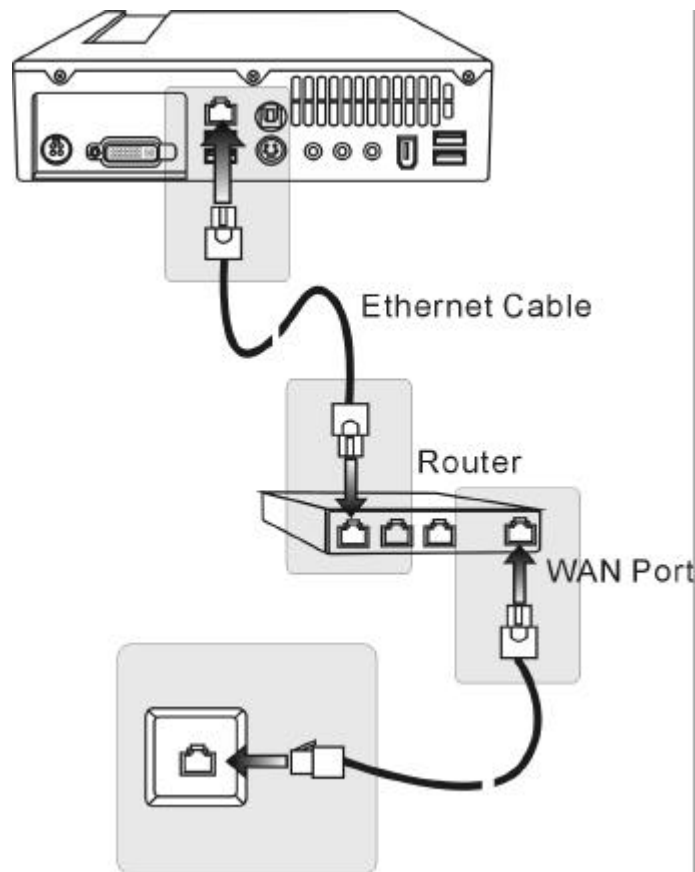
6. Powering on the system

You may now turn on the system by pressing the Power (ON) button.

After the system has successfully booted to Windows, you may connect additional devices such as a USB printer, PC camera, or Firewire-type video camera to the system. Once you plug in the device, Windows will search for its driver. If Windows can not find the driver, you may need to provide the device's Factory Installation CD to complete the installation process. Check the

device's user manual for detailed instruction.
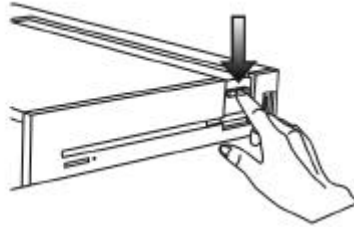
Audio Subsystem – How to Enable the DTS 7.1 Multi-channel Surround Sound System

The system only has a stereo mini-jack that provides line-out signal to a two-speaker configuration. However, if you have an AC3/DTS Home Theater Receiver with 7.1 Multi-channel speaker output, you may use the following illustration to build a 7.1-channel entertainment system.

1. Connecting to the DTS Receiver via S/PDIF Toslink cable

   Note: You may need to purchase a Toslink Cable to make connection. Make sure that the Receiver also has the same type of S/PDIF Toslink input jack.

Toslink Cable

DTS 7.1 Receiver
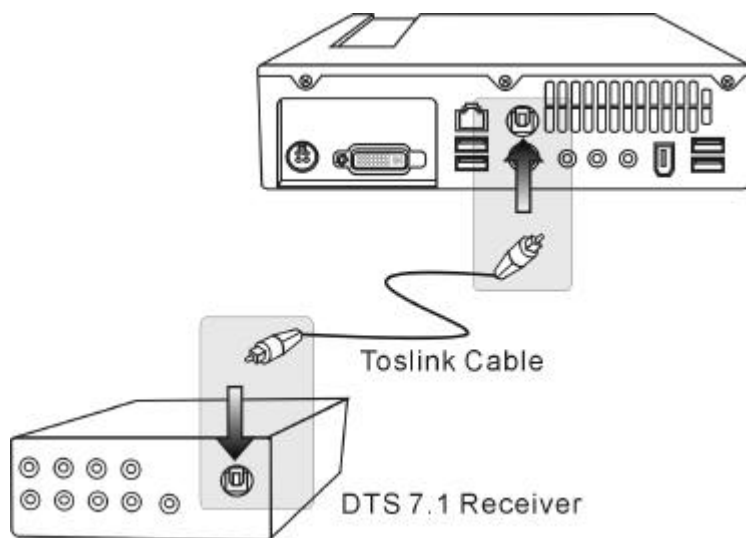
2. Connecting the Speakers to the Receiver

Note: The following illustration assumes that your Receiver has 7.1-channel speaker output. You may need to refer to the Receiver's user manual for speaker connection and the correct settings.

DTS 7.1 Receiver   To XPC

Cable to speaker
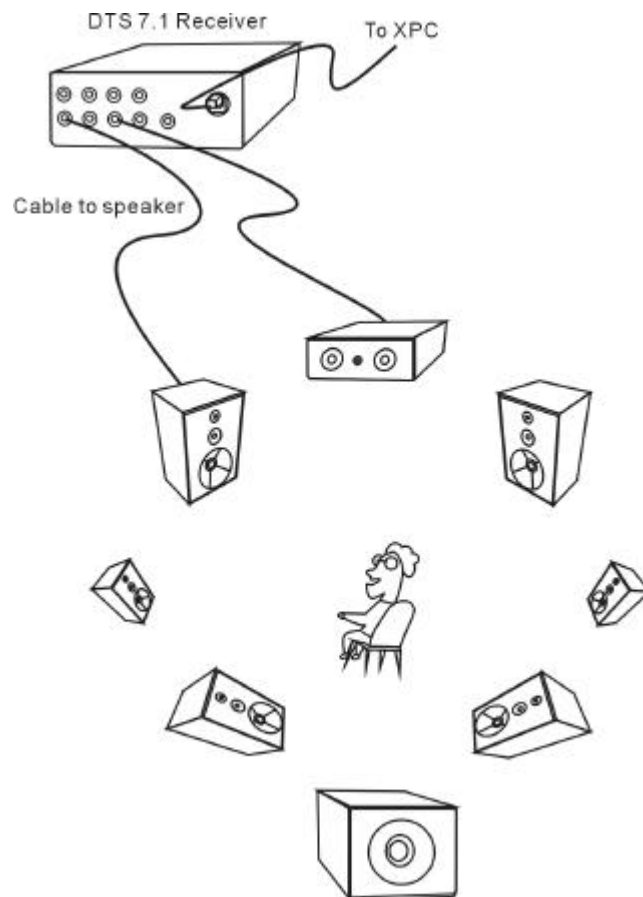
Adjusting the Audio Volume in Windows

    1. Click the speaker symbol in the task tray in Windows.

    2. Drag the volume control bar up or down to adjust the volume.

    3. To temporarily silence the speaker without changing the volume setting, click Mute.

Voice Recording

You will need an external microphone to record sound. You will need to use audio processing software to enable the built-in microphone. For example, you may use Microsoft Sound Recorder.

{Insert an Illustration…}

Ethernet

Your computer is equipped with a 10/100/1000Base-TX Fast Ethernet network adapter. Connect the active LAN cable to the RJ-45 LAN port located on the left side of the computer. This allows you to access and transmit data in the local area network.

Connecting to the Network

Use Unshielded Twisted Pair (UTP) Ethernet cable only.

1. Insert one end of the UTP cable into the network connector until the connector snaps securely into the receptacle.

2. Either connect the other end of the cable to an RJ-45 jack wall outlet or to an RJ-45 port on a UTP concentrator or hub in the network.

Cabling Restriction for Networks

The following restrictions should be observed for 10/100/1000BASE-TX networks:

■ The maximum cable run length is 100 meters(m) (328 feet[ft]).

■ For 100Mbps or 1000Mbps operations, use Category 5 wiring and connections.

Note: Consult Windows manual and / or Novell Netware user's guide for the software installation, configuration, operation of the network.

C H A P T E R ▼ T W O

BIOS SETUP AND SECURITY FEATURE

In this chapter, you will learn how to enter the BIOS Setup Menu and manipulate various hardware control settings. You will also learn how to use the built-in security features.

The Setup Utility is a hardware configuration program built into your computer's BIOS (Basic Input/Output System). It runs and maintains a variety of hardware functions. It is a menu-driven software, which allows you to easily configure and change the settings.

The BIOS contains manufacture's default settings for the computer's standard operations. However, there are occasions when you may be required to modify the default settings in the BIOS. For example, you may need to configure the BIOS power management (APM) settings if you are using DOS, or non-Windows operating system.

The BIOS allows you to set up passwords to limit access to users. This is an important feature because a great deal of vital information is carried within the computer nowadays. Unauthorized access can be prevented. Later in this chapter, you will learn how to use this security feature.

Entering the BIOS Setup Screen

First turn on the power. When the BIOS performs the POST (Power-On Self Test), press F2 key quickly to activate the AMI BIOS Setup Utility.

Note: You may need to press F2 key fairly quickly. Once the system begins to load Windows, you may have to retry by cycle-power on again

Leaving the BIOS Setup Screen

When you have finished modifying the BIOS settings, exit the BIOS. It takes a few seconds to record changes in the CMOS.

BIOS Action Keys

Function Key	Command	Description
ESC	Exit	Leaves a sub-menu to return to the previous menu OR exits the BIOS setup while saving changes.
Enter	Go to Sub Screen	Shows the Sub Menu
F1	General Help	Shows the Help Screen
F10	Save and Exit	Saves changes and reboots the computer.
<Tab>	Select a field	Selects the next field.
↑	Select an item	Selects the next upper item.
↓	Select an item	Selects the next lower item.
-	Lower value	Selects the next value within a field.
+	Higher value	Selects the next value within a field.

Modifying the BIOS Settings

The AMIBIOS setup main menu is subdivided into sub-menus.
Each menu item is described in this section.

Main Setup

Under this menu, you may change time/date and view basic
processor and system memory information.

Item	Selections / Sub-menu	Description
Date	N/A	Type in the current date, in MM/DD/YY format.
Time	N/A	Type in the current date, in HH:MM:SS format.

Boot Setup

? Boot Settings Configuration

Item	Selections / Sub-menu	Description
Quick Boot	Disabled Enabled	Certain tests are skipped during boot-up, therefore the system boots up faster.
Quiet Boot	Disabled Enabled	When Enabled, the system will display OEM logo instead of the POST messages. When Disabled, the system will display POST messages (i.e. devices information.)

? Boot Device Priority

Item	Selections / Sub-menu	Description
1st Boot Device	Removable Dev. CD/DVD Hard Drive Network: Realtek Boot Agent Disabled	Set the type of device for the 1st drive BIOS attempts to boot from. If Realtek Boot Agent is selected, system will attempt to load boot sector from the Ethernet port.
2nd Boot Device		Set the type of device for the 2nd drive BIOS attempts to boot from.
3rd Boot Device		Set the type of device for the 3rd drive BIOS attempts to boot from.
4th Boot Device		Set the type of device for the 4th drive BIOS attempts to boot from.

Note: If you select Realtek Boot Agent, the system will attempt to boot from the network.

Note: When the BIOS performs POST, you may also press F12 Key to enable the Boot Device selection menu. You may choose CD/DVD, Hard Drive, or Realtek Boot Agent as the first storage device to boot from. If you have already connected a USB Floppy Disk Drive before powering up, it will appear as a Removable Device in the Boot Device selection menu

Security Setup

? Boot Settings Configuration

Item	Selections / Sub-menu	Description
Change Supervisor Password	N/A	Install or Change the Password
Change User Password	N/A	Install or Change the Password

Using Password Protection

Two Levels of Password Protection are available. The BIOS provides both a Supervisor and a User password. If you try to activate both passwords, the Supervisor password must be set first. The passwords activate two different levels of protection:

1.   System always asks for password every time it is powered on.

2.   System asks for password only when you attempt to enter BIOS utility.

The passwords are encrypted and stored in NVRAM. Make sure you write them down or memorize them. If you lost the passwords, the computer may need to be sent back to the factory or to an authorized service dealer to reset the passwords.

Power Setup

Item	Selections / Sub-menu	Description
Long Battery Life Mode	Enable Disable	When Enabled, maximum battery life can be achieved. The processor performance is lowered.
Power Button Mode	On/Off Suspend	[On/Off]: When the power button is pressed, the system is turned off. [Suspend]: When the power button is pressed, the system enters the suspend mode.

Note: The Suspend Mode selection in BIOS only applies to older Windows version (such as Windows 3.1 or Windows 95 or NT4) or non-Windows operating system. In Windows ME / 98SE / 2000 / XP, suspend mode and settings are determined by settings in the Power Options Properties (Start > Control Panel > Power Options).

Exit Setup

Item	Selections / Sub-menu	Description
Saves Changes and Exit	N/A	After you have completed the BIOS settings, select this item to save all settings, exit BIOS Setup utility, and reboot. New system settings will take effect on next power-up. F10 key can be used for this operation.
Discard Changes	N/A	Discards changes done so far to any of the setup questions.
Load Optimal Defaults	N/A	Load Optimal Default value for all the setup questions. F9 key can be used for this operation.

C H A P T E R ▼ T H R E E

TROUBLE SHOOTING

In this chapter, you will learn how to solve common hardware and software problems.

Your computer has been fully tested and complies with the system specifications before shipping. However, incorrect operations and/or mishandling may cause problems.

This chapter provides a reference for identifying and correcting common hardware and software problems that you may encounter.

When you encounter a problem, you should first try to go through the recommendations in this chapter. Instead of returning the computer and waiting for repair, you may easily solve the problems by considering the following scenarios and possible solutions. If the error continues, contact your reseller for service information.

Before taking further actions, consider the following suggestions:

■ Check to see if the problem persists when all the external devices are removed.

■ Check to see that the green light indicator on the AC adapter is lit.

■ Check to see the power cord is properly plugged to the wall outlet and to the computer.

■ Check to see the power indicator of the computer is on.

■ Check to see if your keyboard is operational by pressing and holding any key.

■ Check for any incorrect or loose cable connections. Make sure the latches on the connectors latch securely on to the receptor end.

■ Be sure you have not performed an incorrect setting on the

hardware devices in the BIOS Setup utility. A faulty setting may cause the system to misbehave. If you are not sure of the changes you made, try to restore all the settings to factory defaults.

■ Be sure all the device drivers are installed properly. For example, without the audio driver properly installed, the speakers and microphone will not work.

■ If external devices such as USB camera, scanner, printer do not function correctly when connected to the system, it is usually the device' s own problem. Consult the device' s manufacturer first.

■ Some software programs, which have not gone through rigorous coding and testing, may cause problems during your routine use. Consult the software vendor for problem solving.

■ Legacy peripheral are not plug-and-play capable. You need to restart the system with these devices powered up and connected first.

■ Be sure to go to BIOS SETUP and load DEFAULT SETTING after BIOS re-flash.

■ Be sure the Quick Key Lockout Switch on the bottom of the computer is not engaged; otherwise the quick keys will not work.

Audio Problems

No speaker output -

■ Software volume control is turned down in Microsoft Sound System or is muted. Double-click the speaker icon on the lower right corner of the taskbar to see if the speaker has been muted or turned down all the way.

■ Most audio problems are software-related. If your computer worked before, chances are software may have been set incorrectly.

■ Go to [Start > Settings > Control Panel] and double-click the Sounds and Audio Devices icon. In the Audio page, make sure that Realtek HD Audio is the default playback device.

Sound cannot be recorded -

■ You will need to plug-in an external microphone to the microphone connector to record sound.

■ Double-click the speaker icon on the lower right corner of the taskbar to see if the microphone has been muted.

1. Click Options and select Properties.
2. Select Recording and click the OK button.
3. After Click OK button, the recording volume control panel will appear.

■ Go to [Start > Settings > Control Panel] and double-click the Multimedia icon (or Sounds and Audio Devices icon). In the Volume or Audio page, make sure that Realtek HD Audio is the default recording device.

Hard Disk Problems

The hard disk drive does not work or is not recognizable -

■ If you had just performed a hard disk upgrade, make sure the hard drive connector is not loose and the hard disk drive is also correctly seated. Remove it and reinsert it firmly, and restart your PC. (Refer to Chapter 4 for details.)

■ The new HDD may need to be partitioned and reformatted. O/S and drivers will need to be re-installed as well.

■ Check the hard disk indicator LED. When you access a file, the LED lamp should light up momentarily.

■ The new HDD may be defective or is not compatible.

■ If your computer has been subjected to static electricity or physical shock, you may have damaged the disk drive.

The hard drive is making abnormal whining noises -

■ You should back up your files as soon as possible.

■ Make sure the source of noise is indeed from the hard drive and not the fan or other devices.

The hard disk drive has reached its capacity -

■ Run Disk Cleanup utility in Windows. [Start > All Programs > Accessories > System Tools > Disk Cleanup] The system will prompt you for what to do.

■ Archive files or programs that you had no longer used by moving them to an alternative storage medium (floppy disk, optical record-able disk, etc.) or uninstall programs that no longer use.

■ Many browsers store files in the hard drive as a cache to speed up the performance. Check the program's Online Help

for instructions on decreasing the cache size or on removing temporary Internet files.

■ Empty the Recycle Bin to create more disk space. When you delete files, Windows saves them to the Recycle Bin.

The hard disk takes longer to read a file -

■ If you have been using the drive for a period, the files may be fragmented. Go to [Start > Programs > Accessories > System Tools > Disk Defragmenter] to perform a disk defragmentation. This operation may take a while.

■ Interrupt requests or problems with other hardware devices may have occupied the CPU and therefore slows down the system performance.

The files are corrupted -

■ Run the Error-checking utility in Windows to check the HDD. Double-click My Computer. Right-click C: and select Properties. Click Check Now in Error-checking in Tools.

Optical Drive Problems

The optical drive does not work -

■   Try rebooting the system.

■   The disk is damaged or files are not readable.

■   After you have inserted a CD-ROM disk, it may take a moment before you can access its content.

The drive dose not read any disks -

■   The CD may not be properly seated in the tray. Make sure the disk is firmly seated onto the spindle.

■   The disk is damaged or not readable.

The disk cannot be ejected -

■   Normally, it takes a few seconds to eject the disk.

■   If the disk cannot be ejected, it may be mechanically jammed. Straighten out a paper clip and insert it to a tiny hole next to the eject button. This should reject the disk tray. If not, return the unit for repair. Do not forcefully pull on the disk tray.

The Combo or DVD Dual or Supermulti drive (optional device) cannot record -

■   You need to purchase and install a burner utility program to record files to a blank media.

Display Problems

The display panel is blank when the system is turned on -

■ Make sure the computer is not in the Standby or Hibernate suspend modes. The display is turned off to conserve energy in these modes.

The screen is difficult to read -

■ The display resolution should at least be set to at least1024x768 for optimal viewing.

1. Go to [Start > Settings > Control Panel] and double-click the Display icon.

2. Under the Settings page, set screen resolution to at least 1024x768 and choose at least 256 colors.

The screen flickers -

■ It is normal if the display flickers a few times during shutting down or powering up.

Keyboard and Mouse Problems

The built-in touch pad performs erratically -

■　　Make sure there is no excess perspiration or humidity on your hand when using the touch pad. Keep the surface of the touch pad clean and dry.

■　　Do not rest your palm or wrist on the surface of the touch pad while typing or using the touch pad.

The built-in keyboard accepts no input -

■　　If you are connecting an external keyboard to the system, the built-in keyboard may not work.

■　　Try restarting the system.

The characters on the screen repeat while I type.

■　　You may be holding the keys down too long while you're typing.

■　　Keep the keyboard clean. Dust and dirt under the keys could cause them to stick.

■　　Configure the keyboard to wait longer before the auto repeat feature starts. To adjust this feature, Go to [Start > Settings > Control Panel], and double-click the Keyboard icon. A dialogue box shows up with the adjustable settings for the keyboard.

CMOS Battery Problem

A message "CMOS Checksum Failure" displays during the booting process or the time (clock) resets when booting -

■   Try to reboot the system.

■   If the message "CMOS Checksum Failure" appears during the booting procedure even after rebooting, it may indicate failure of the CMOS battery. If so, you need to replace the battery. This battery normally lasts two to five years. The battery is of type CR2032 (3V).

Memory Problems

The POST does not show an increased memory capacity when you have already installed additional memory -

■ Certain brands of memory module may not be compatible with your system. You should ask your vendor for a list of compatible DIMM.

■ The memory module may not be installed properly. Go back to Chapter 4 to review the details of this operation.

■ The memory module may be defective.

The O/S issues an insufficient memory error message during operation -

■ This is often a software or Windows-related problem. A program is draining the memory resources.

■ Close the application programs you're not using and restart the system.

■ You need to install additional memory module. For instructions, go to Chapter 4 Upgrading Your Computer.

Network Adapter / Ethernet Problems

The Ethernet adapter does not work -

■ Go to [Start > Settings > Control Panel > System > Hardware > Device Manager]. Double-click on Network Adapters and check if Realtek RTL8169/8110 Family Gigabit Ethernet NIC appears as one of the adapters. If it does not exist, Windows has not detected the Realtek RTL8169/8110 Family Gigabit Ethernet NIC or the device driver has not been installed properly. If there is a yellow mark or red-cross on the network adapter, it may be a device or resource conflict. Replace or update the device driver from the factory CD-ROM disk or consult Windows manual on how to solve the resource conflict problem.

■ Make sure the physical connections on both ends of the cable are good.

■ The hub or concentrator may not be working properly. Check to see if other workstations connected to the same hub or concentrator is working.

The Ethernet adapter does not appear to operate in the 1000Mbps transmission mode -

■ Make sure the hub you are using supports 1000Mbps operation.

■ Make sure that your RJ-45 cable meets the 1000Base-TX requirements.

■ Make sure the Ethernet cable is connected to the hub s socket that supports 1000Base-TX mode. The hub may have both 100Base-TX and 1000Base-T sockets.

Performance Problems

The computer becomes hot -

■ In a 35°C environment, the certain areas of the computer's back case are expected to reach 50 degrees.

■ Make sure the air vents are not blocked.

■ If the fan does not seem to be working at high temperature (50 degrees Celsius and up), contact the service center.

■ Certain programs that are processor-intensive may increase the computer temperature to a degree where the computer automatically slows down its CPU clock to protect itself from thermal damage.

The program appears stopped or runs very slowly -

■ Press CTRL+ALT+DEL to see if an application is still responding.

■ Restart the computer.

■ This may be normal for Windows when it is processing other CPU-intensive programs in the background or when the system is accessing slow-speed devices such the floppy disk drive.

■ You may be running too many applications. Try to close some applications or increase system memory for higher performance.

■ The processor may have been overheated due to the system' s inability to regulate its internal heat. Make sure the computer' s ventilation grills are not blocked.

Firewire (IEEE1394) and USB2.0 Problems

The USB device does not work -

■ Windows NT 4.0 does not support USB protocols

■ Check the settings in the Windows Control Panel.

■ Make sure you have installed the necessary device drivers.

■ Contact the device vendor for additional support.

The IEEE1394 port does not work -

■ Go to [Start > Settings > Control Panel > System > Hardware > Device Manager]. You should see an entry which reads "Texas Instrument OHCI Compliant IEEE 1394 Host Controllers" . If it does not exist, Windows has not detected the host controller or the device driver has not been installed properly. If there is a yellow mark or red-cross on the 1394 host controller, it may be a device or resource conflict. Replace or update the device driver from the factory CD-ROM disk or consult Windows manual on how to solve the resource conflict problem.

■ Make sure the cable is fully connected.

■ Make sure you have installed the necessary device drivers.

■ Contact the device vendor for additional support.

A P P E N D I X ▼   A

PRODUCT SPECIFICATION

▼ Processor and Core Logic

- ■ Processor

- ■ Core Logic

Mobile Intel Pentium M – Dual-Core Processor (Yonah), up to 2.16 GHz, 2 MB L2 cache
Intel Calistoga 945PM + ICH7-M chipset with audio, modem, and USB2.0 controllers integrated
667MHz Front Side Bus
533 / 667MHz DDR2 interface

▼ System Memory

- ■ Memory Type
- ■ Default
- ■ Memory Expansion

DDR2 SDRAM 533 / 667
256 / 512 / 1024MB
Two 200-pin DIMM sockets, Max 2 GB

▼ Graphic Subsystem

- ■ Graphic Accelerator
- ■ Motion Playback
- ■ Other Features

ATI M54-P (with 128MB DDR2 Frame Buffer)
Supports MXM Type II
Hardware Motion Compensation and IDCT Supported for MPEG1/2 Playback
DirectX compatible

▼ Audio

- ■ Chipset
- ■ Audio Codec
- ■ Sound Capabilities

Intel (ICH7M) integrated audio controller
Realtek ALC880
DirectSound 3D, EAX 1.0 & 2.0 compatible
A3D, I3DL2 compatible
AC97 V2.3 compatible
7.1 Multi-channel compatible
Azalia compatible

▼ Wireless LAN

■ Module
■ Transmission Protocol

Intel PRO/Wireless 3945ABG Card
Mini-Card Interface IEEE802.11 B&G

▼ LAN / Ethernet

■ Chipset

■ PnP Function

■ Flow Control
■ Speed Selection
■ Other Features

Realtek 8110 Ethernet function for
10/100/1000Base-TX network standards
Windows 2000 / XP Plug and Play compatible
Automatic Jam and auto-negotiation for flow control
Auto Negotiation and Parallel detection for automatic
speed selection (IEEE 802.3u)

High performance 32-bit PCI bus master architecture
with integrated DMA controller for low CPU and bus
utilization
Remote Wake-up Scheme supported
Hot Insertion supported

▼ Multiple Card Reader

■ Chipset
■ 4-in-1 Card Reader Format Support

02 Micro 0Z128 (Card Reader)
Multimedia Card (MMC), Secure Digital Card (SD),
Memory Stick (MS), and MS Pro Card

▼ **Firewire IEEE1394(a)**

■ Chipset

■ Capabilities

TI TSB43AB22A IEEE1394 OHCI Host Controller and
Up to 400 Mbps
Expandable up to 63 devices in chains

▼ **Storage**

■ Hard Drive
■ DVD-Dual or
DVD-Multi
Standards

3.5-inch format hard disk drive
Trayless-type (slot-in) 5.25-inch format (12.7mm height)
fixed module (Optional Purchase)

▼ **Ports and Connectors**

■ Mic-In Port
■ Audio-Out
■ Audio-In Port
■ S/PDIF
■ Firewire
■ USB2.0 Port
■ Ethernet
■ S-Video
■ Power-In
■ DVI-I Port
■ Card Reader

One Microphone-in jack
One Headphone / Line-out jack
One Line-in jack
One S/PDIF Toslink (optical) jack
One Firewire (IEEE1394) host connector
Five USB2.0-compliant connectors
One standard network Ethernet connector (RJ-45)
One S-video (TV-out) output connector
One DC-in connector
One DVI-I video connector
One 4-in-1 Card Reader slot

▼ **AC Adapter**

■ Adapter
  AC-Input /
  DC-Output

Autosensing A C-in 100~240V, DC-out 20V, 120W

▼ **BIOS**

■ PnP Function
■ Self Test
■ Auto
  Detection

■ Power
  Management
■ Security
■ Other
  Features

AMI PnP BIOS
Power On Self Test
DRAM auto-detection, auto-sizing
L2 Cache auto-detection
Hard disk type auto-detection
APM 1.2 (Advanced Power Management) &
ACPI 2.0 (Advanced Configuration Power Interface)
Two Level Password Protections
32bit access, Ultra DMA, PIO5 Mode support
Multi-boot capability

▼ **Operating System**

■ O/S

Compatible with Microsoft Windows XP Professional
Edition

▼ **Physical Specification**

■ Dimension
■ Weight
■ Environmental
  Limits

296 (W) x 210 (D) x 56 (H) mm
3.41 KG
Operating Temperature: 5 to 30°C (41 to 86°F)
Operating Humidity: 20 to 80 percent RH (5 to 35°C)
Storage Temperature: -15 to 50°C (-5 to 122°F)

A P P E N D I X ▼ B

AGENCY REGULATORY NOTICES

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by the Manufacture may void the user's authority to operate the equipment.

Connections to Peripheral Devices

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) and R&TTE Directive (1999/5/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

European Norms:
- EN55022 : 1998+A1: 2000+A2: 2003, CLASS B
- EN61000-3-2 : 2000
- EN61000-3-3 : 1995+A1: 2001
- EN55024 : 1998+A1 : 2001+A1: 2003
- IEC61000-4-2: 2001
- IEC61000-4-3:2002+A1:2002
- IEC61000-4-4:1995+A1:2000+A2:2001
- IEC61000-4-5:2001
- IEC61000-4-6:2001
- IEC61000-4-8:2001
- IEC61000-4-11:2001
- EN50082 (IEC801-2, IEC801-3, IEC801-4)   Electro-magnetic Immunity
- EN 300 328-2, EN 300 328-1, EN 301 489-1, EN 301 489-17 (ETSI 300 328, ETSI 301 489) Electro-magnetic Compatibility and Radio Spectrum Matter.
- TBR21 (ETSI TBR21) Terminal Equipment.
- EN60950 (IEC60950) I.T.E. Product Safety

Canadian Notice
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le present appareil numerique nemet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de Classe B prescrites dans le reglement sur le brouillage radioelectrique edicte par le Ministere des Communications du Canada.

REN (Ringer Equivalent Numbers) Statement

"NOTICE: The **Ringer Equivalence Number** (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5."
IC ID: 3409A-M30EI0

Attachment Limitations Statement

"**Notice:** This equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). This is confirmed by marking the equipment with the Industry Canada certification number. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate."

Power Cord Requirement

The power cord supplied with the AC adapter should match the plug and voltage requirements for your local area. Regulatory approval for the AC adapter has been obtained using the power cord for the local area. However, if you travel to a different area and need to connect to a different outlet or voltage, you should use one of the power cords listed below. To purchase a power cord (including one for a country not listed below) or a replacement ac adapter, contact your local dealer.

U.S. and Canada
- The cord set must be UL-Listed and CSA-Certified or C-UL Listed.
- The minimum specifications for the flexible cord are (1) No. 18 AWG,

(2) Type SJ, and (3) 3-conductor.
- The cord set must have a rated current capacity of at least 10 A.
- The attachment plug must be an earth-grounding type with a NEMA 5-15P (15A, 125V) or NEMA 6-15P (15 A, 250V) configuration.

Japan
- All components of the cord set (cord, connector, and plug) must bear a `PSE` mark and registration number in accordance with the Japanese Dentori Law.
- The minimum specification for the flexible cord are: (1) 0.75 mm^2 conductors, (2) Type VCT or VCTF, and (3) 3-conductor.
- The cord set must have minimum rated current capacity of 7 A.
- The attachment plug must be a two-pole, grounded type with a Japanese Industrial Standard C8303 (15 A, 125 VAC) configuration.

Other Countries
- The cord set fittings must bear the certification mark of the agency responsible for evaluation in a specific country. Acceptable agencies are:

  > BSI (UK)
  > OVE (Australia)
  > CEBEC (Belgium)
  > SEMKO (Sweden)
  > FIMKO (Finland)
  > DEMKO (Denmark)
  > NEMKO (Norway)
  > SETI (Finland)
  > EANSW (Australia)
  > SEV (Switzerland)
  > IMQ (Italy)
  > UTE (France)
  > CCC (China)
  > PSB (Singapore)
  > PSE (Japan)
  > BSMI (Taiwan)
  > B (Polish)
  > VDE (Germany)
  > SASO (Saudi Arabia)

- The flexible cord must be of a HAR (harmonized) type HO5VV-F 3-conductor cord with a minimum conductor size of 0.03 square inches.
- The minimum specification for the flexible cord for Class II

1-53

  product are: (1) 2X0.75 mm^2 conductors, (2) 2-conductor cord.
- ■ The cord set must have a current capacity of at least 10 A and a nominal voltage rating of 125 / 250 VAC.

CAUTION: MODEL XPCIAx IS DESIGNED TO USE WITH THE FLLOWING AC ADAPTER MODEL ONLY
Manufacture: LI SHIN INTERNATIONAL ENTERPRISE CORP.
Model: 0227A20120 (120W)

Laser Safety
The optical drive used with this computer is certified as a Class 1 laser device according to the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard and International Standards IEC 825 / IEC 825-1 (EN60825 / EN60825-1). The device is not considered harmful, but the following precautions are recommended:
- ■ Do not open the unit.
- ■ Avoid direct exposure to the laser beam.
- ■ If the unit requires service, contact an authorized service center.
- ■ Ensure proper use by reading and following the instructions carefully.
- ■ Do not attempt to make any adjustment of the unit.

CLASS 1 LASER PRODUCT
APPAREIL A LASER DE CLASSE 1
LASERSCHUTZKLASSE 1 PRODUKT

Warning!
Do not attempt to disassemble the cabinet containing the laser. The laser beam used in this product is harmful to the eyes. The use of optical instruments, such as magnifying lenses, with this product increase the potential hazard to your eyes. For your safety, have this equipment serviced only by an authorized service provider.

Lithium battery warning / Bridge battery warning
This computer contains a lithium battery to power the clock and calendar circuitry.

CAUTION: Danger of explosion if 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.

ATTENTION: Il y a danger d'xplosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avcc unc batterie du meme type ou d'un type recommande par le constructer. Mettre au rebut les batteries usagees conformement aux instructions du fabricant.

VORSICHT! Explosionsgefahr bei unsachgemBen Austausch der Batterie Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ahnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

Der Arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 betragt 70dB (A) oder weniger.

Zum Netzanschlua dieses Gerates ist eine geprufte Leitung zu verwenden. Fur einen Nennstrom bis 6A und einem Gerategewicht groBer 3kg ist eine Leitung nicht leichter als (1)H05VV-F, 3G, 0.75mm^2 (2)2X0.75 mm^2 conductors einzusetzen.

Die Steckdose muB nahe dem Gerat angebracht und leicht zuganglich sein.

CAUTION!
This part is hot. Be Careful.
VORSICHT!
Diese Flache wird sehr heiss.
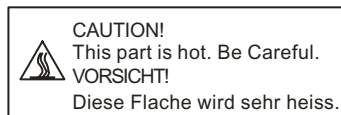
When you see this symbol, be careful as this spot may be very hot.

Notice

The information in this user' s manual is subject to change without notice.

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engineering or disassembly is prohibited.
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Rev 1.0

TABLE OF CONTENTS

Preface

Using This Manual

This User's Manual contains general information about the hardware and software setup, troubleshooting, and technical specifications of the XPC computer.

Symbols and Conventions

The following conventions and symbols are used in this manual:

■   When keys are to be pressed at the same time, a plus (+) symbol is used. For instance, Fn+F7 means holding Fn and F7 keys at the same time.

■   When a series of clicking actions is needed in Windows O/S, [ ] and > symbols are used. For instance, [Start > Settings > Control Panel > Display] means clicking the Start icon first, then the Settings, then the Control Panel, then the Display icon.

■   When you need to make a selection with the touch pad (or mouse), you will be asked to 'select' or 'click' or 'double-click', 'right-click' the item.

Note: Text in this format and symbol means specific instructions, commentary, sidelights, or any additional information or notes that you should be aware of.

Warning: Text in this format and symbol means that failures to comply with the given instructions or information could result in damage to your computer or could cause bodily harm or loss of life.

Protecting Your Computer - Avoid Abusive Handling and Adverse Environment

Follow the advice below will help ensure that you get the most out of your Investment.

Your computer will serve you well if you take good care of it.

■   Do not expose the computer to direct sunlight or place it near sources of heat.

■   Do not subject it to temperatures below 0°C (32°F) or above 30°C (86°F).

■   Do not expose the computer to magnetic fields.

■   Do not expose the computer to moisture or rain.

■   Do not spill water or liquid on the computer.

■   Do not subject the computer to adverse shock and vibration.

■   Do not expose the computer to dust and dirt.

■   Do not place objects on top of the computer to avoid damaging the computer.

■   Do not place the computer on rocky surfaces.

Here are some ways of taking care of your AC adapter.

■   Do not connect the adapter to any devices other than your computer.

■   Do not let water get into the adapter.

■   Do not block the ventilation airway of the adapter.

■   Keep the adapter in a cool and ventilated place.

■   Do not step on the power cord or place heavy objects on top of it.

■   Carefully tuck away the power cord and any cables away from pedestrian traffic.

■   When unplugging the power cord, do not pull on the cord itself but pull on the plug.

■   Keep the adapter away from children.

■   The total ampere ratings of the equipment plugged in should not exceed the ampere rating of the cord if you are using an extension cord.

■   The total current rating of all equipment plugged into a single wall outlet should not exceed the fuse rating.

■   Do not connect other AC adapter to your XPC. This XPC uses exclusively the AC adapter: Li-shin 0227A20120 (120W)

When cleaning the computer, observe these steps:

1.   Power off the computer and remove the battery pack.
2.   Disconnect the AC adapter.
3.   Use a soft cloth dampened with water. Do not use liquid or aerosol cleaners.

Contact your dealer or see your service technician if any of the following occurs:

■   Computer has been dropped or the body has been damaged.

■   Liquid has been spilled into the product.

■   The computer does not operate normally.

Cleaning the Ventilation Grills:
It is suggested that you clean the ventilation grills regularly to maintain optimal thermal regulation of the XPC. To do this, you may use a soft brush or a vacuum cleaner (with appropriate head adapter) to remove the dust buildup on the ventilation grills.

Chapter Summaries

The following is a summary of the available chapters and
appendices in this manual.

Chapter 1: Getting to Know the Basics
        In this chapter, you will learn the basic operations and features
of your computer. It gives you a general understanding of the
components of your computer.

Chapter 2: BIOS Setup / Security
        In this chapter, you will learn how to change various firmware
settings and what the settings mean. Also, you will learn how to
take advantage of the built-in security feature provided by the
BIOS.

Chapter 3: Trouble-Shooting
        In this chapter, you will learn how to solve common hardware
and software problems.

Appendix A: Product Specification
        In this section, you will find a list of the computer's system
specifications.

Appendix B: Agency Regulatory Notices
        In this section, you will find the general electro-magnetic and
safety regulatory information.

This Transmitter must not be co-located or operating in conjunction with any other antenna or
transmitter.
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled
environment. This equipment should be installed and operated with a minimum distance of 20
centimeters between the radiator and your body.
Any changes or modifications (including the antennas) made to this device that are not expressly
approved by the manufacturer may void the user's authority to operate the equipment.