Chapter 2

Installation and Upgrade

2.1 Overview

This chapter provides guidelines on installing the device drivers for the built-in features of the A440 Series. Most of the driver installation procedures mentioned here are only for Windows 98/2000 and Windows NT 4.0. This chapter also includes procedures on how to upgrade major internal system components like CPU, memory, hard disk, and feature card modules.

2.2 Notebook Drivers and Utilities

The notebook requires several device drivers that you need to install and setup before you can fully operate the notebook. These are:

- Phoenix PHDISK Suspend-to-Disk Utility – DOS
- TEAC CD-ROM or MKE DVD-ROM Driver – DOS
- Trident CyberBLADEi1 AGP VGA Driver – Windows 98/2000 and NT 4.0
- AC 97 Software Codec Audio controller Driver – Windows 98/2000 and NT 4.0
- EasyButton (Internet/E-mail button) Driver – Windows 98/2000 and NT 4.0

The notebook also comes with other option devices that requires driver installation:

- MC-97 S/W Modem – Windows 98/2000 and NT4.0
- Intel 82559 LAN Driver – Windows 98/2000 and NT 4.0

Go to the FIC Support website for the latest driver updates.

2.2.1 Running the PHDISK STD Utility

The PHDISK utility of the notebook allows you to create a suspend-to-disk (STD) partition or file that is used to save the opened files when you activate STD mode and power off the computer. If you want to make use of the STD feature, you need first to run the PHDISK utility. There are two options for executing this utility:

1. **PHDISK /Create /Partition** - you can choose to run Suspend-to-Disk and save your work into an allocated fixed disk partition. This option should be done before partitioning and formatting your hard disk. The advantage of this option is that it is more secure since the files are saved in a separate partition and has no risk of being deleted. The disadvantage of this is that you need to allocate enough disk partition for future memory upgrade. The STD partition should always be larger than the system memory RAM.

2. **PHDISK /Create /File** - you can also choose to run Suspend-to-Disk and save your work into a STD file. You do not need to allocate an extra disk partition when running this option. The advantage of this is that you do not need to allocate or waste extra disk partition. The disadvantage of this option is that it is less secure since there is risk of deleting the STD file although the file is hidden.

Running the PHDISK /Create /Partition Option

Before you run this option, you should carefully consider how much disk size you need to allocate for the STD partition. The STD partition should be larger than the installed system memory RAM. If you are planning to install more memory in the future, it is recommended to allocate more disk space. Run FDISK under DOS and leave around 5% of disk space or more for Non-DOS partition. This will later be used by the PHDISK for creating the STD partition. If you already run FDISK before, you need to delete the original partition of the hard disk. Load the notebook driver CD and look for the PHDISK program file. Run "**PHDISK /Create /Partition**" or "**PHDISK /C /P**". The PHDISK utility program will automatically assign a disk size in reference to the installed system RAM to be allocated for the STD partition. After PHDISK has completed the STD partition, you will be prompted to reboot the system.

Running the PHDISK /Create /File

Creating a STD file is much simpler since you do not need to allocate an extra disk partition. Load the notebook driver CD and look for the PHDISK program file. Run "**PHDISK /Create /File**" or "**PHDISK /C /F**". PHDISK will create the **SAVE2DSK.BIN** file on Drive C. The size of this file will depend on the installed RAM memory of your computer. This file also is hidden and has read-only attributes. You must not delete this file.

ⓘ During power on or restart, the system will detect if STD partition or file is present. If not, it will show a red colored dialog box informing you that "Save to Disk Partition Not Present" and "Save to Disk Feature Disabled".

ⓘ Whenever you upgrade the memory, you need to delete the existing STD partition or file and create a new one according to the new memory size. Run PHDISK /Delete /Partition or PHDISK /Delete /File to delete existing STD partition or file.

ⓘ Use PHDISK v4.3 or later.

2.2.2 Installing the DVD-ROM or CD-ROM Driver (For DOS)

This section provides installation guide for the DVD-ROM or CD-ROM device driver under MS-DOS and other operating systems.

> For DOS installation, you must have a pre-installed MS-DOS v6.0 or higher operating system on your hard disk with the “MSCDEX.EXE“ (Microsoft CD Extension) driver file. For DOS, this is located under the DOS directory. For Windows 95/98, this is located under the \WINDOWS\COMMAND subdirectory.

Installing the CD-ROM driver under DOS prompt

1. Boot up the system of your computer and insert the Teac CD-ROM driver diskette into the floppy drive.

2. Change the directory of the DOS prompt to Drive A and run the CD-ROM installation program by typing the command **A:\>INSTALL**.

3. The CD-ROM Setup program will appear and ask you for directory name where the driver will be installed. Press <Enter> to install into the default directory.

4. With "Auto Select" selected, press <Enter> to continue with the installation.

5. With "Modify the file now" selected, press <Enter> to modify AUTOEXEC.BAT file.

6. With "Modify the file now" selected, press <Enter> once again to modify CONFIG.SYS file.

7. Finally, press <Enter> to complete installation. Then, restart the computer after installation is complete. Your computer will then detect the CD-ROM drive and will display the designated drive letter. The CD-ROM drive should be assigned to Drive D. If you have two disk partition, the CD-ROM drive will be assigned to Drive E.

Installing the DVD-ROM driver under DOS prompt

1. Boot up the system of your computer and insert the Toshiba DVD-ROM driver diskette into the floppy drive.

2. Change the directory of the DOS prompt to Drive A and run the DVD-ROM installation program by typing the command **A:\>INSTALL**.

3. The DVD-ROM Setup program will appear and ask you to press <Enter> to start installation or press <ESC> key to exit installation program.

4. A connection diagram appears with a message shown "Confirm the connection environment of the computer, Are you sure?" Press <Y> to confirm.

5. The installation program will ask you to specify the directory where you want to place the DVD-ROM driver. Press <Enter> to install into the default directory.

6. Press <Enter> to continue with the next step.

7. The installation program will automatically copy the DVD-ROM driver to your hard disk and modify the AUTOEXEC.BAT and CONFIG.SYS files in activating the DVD-ROM drive every time you boot the system up.

Installing the MKE DVD-ROM driver under DOS prompt

1. Boot up the system of your computer and insert the MKE DVD-ROM driver diskette into the floppy drive.

2. Change the directory of the DOS prompt to Drive A and run the DVD-ROM installation program by typing the command **A:\>INSTALL**.

3. The Easy Installation menu will appear and ask you to select type of installation. Input <2> and press <Enter> to select Express Installation.

4. Press <Y> to confirm that Autoexec.bat is updated with Mscdex.exe.

5. The installation program will automatically copy the DVD-ROM driver to your hard disk and modify the AUTOEXEC.BAT and CONFIG.SYS files in activating the DVD-ROM drive every time you boot the system up.

ⓘ You may also install Windows 98 by first installing the DVD-ROM / CD-ROM driver under a pre-formatted hard disk with MS-DOS operating system. Then go to Drive D (where the DVD-ROM / CD-ROM drive is assigned), and run "**SETUP.EXE**" to install Windows 98.

ⓘ It is important that you use the DVD-ROM / CD-ROM driver provided together with the notebook. Using other DVD-ROM / CD-ROM driver may not allow Windows 98 to shutdown properly.

Installing Windows 98 from DVD-ROM / CD-ROM

After installing DVD-ROM / CD-ROM driver, you may insert Windows 98 disc into your DVD-ROM / CD-ROM drive and run **"Setup.exe"**.

Installing Windows 2000 / NT from DVD-ROM / CD-ROM

If you are installing Windows 2000 or NT 4.0, you only need to set the boot sequence under the Boot menu of the BIOS SETUP program to "**ATAPI CD-ROM Drive**". Insert the Windows NT compact disc into the CD-ROM or drive and boot directly from the disc for immediate installation.

2.2.3 Installing the VGA Device Driver

Your notebook computer uses the high-performance Trident CyberBLADEi1 VGA controller, which is an AGP 2x video local bus, 2D/3D Graphic Engine and includes Zoomed Video (ZV) Port Technology for supporting ZV PCMCIA cards. Following is the procedure for installing the VGA Driver for Windows 98 and NT 4.0:

Installing VGA Device Driver for Windows 98

1. Insert the CD containing the VGA driver for Windows 98 into CD-ROM drive.

2. Click the **Start** button, and then click **Control Panel.**

3. Click on the **Display** Icon, then go to the S**ettings** folder, click on **Advanced.**

4. Choose the **Adapter** folder, and then click **Change.**

5. The Update Device Driver Wizard message box appears. Click **Next** to continue with the next step.

6. Choose "**Search for a better driver than the one your device is using now. [Recommended]", then** click **Next.**

7. Click on the "**Specify a location"**, then enter the correct path of the Windows 98 VGA driver or click the **Browse** button and navigate into the directory where the VGA driver is.. Then click **Next.**

8. Select "**The updated driver [recommended], Trident Cyberbladei1 AGP [8520-83]**", then click **next.**

9. Windows will display the current Location of the VGA driver, click **Next.**

10. An Insert Disk window will appear, click **OK.**

11. Enter the path of the Windows 98 VGA driver or click the **Browse** button and navigate into the directory where the VGA driver is, then click **OK.**

12. Click **Finish** and choose **Yes** to restart.

13. After restarting the system, you may want to set screen resolution and color depth to have optimum viewing. Go back to the **Display** icon, and then go to the **Settings** folder. Then, adjust resolution and color depth in accordance with your preference.

Installing VGA Device Driver for Windows NT 4.0

1. Insert the CD containing the VGA driver for Windows 2000 into CD-ROM drive.

2. Click the **Start** button, and then click **Control Panel.**

3. Click on the **Display** Icon, then go to the S**ettings** folder, click on **Display Type.**

4. Click **Change.**

5. Click **Have Disk.**

6. Enter the correct path of the Windows 98 VGA driver or click the **Browse** button and navigate into the directory where the VGA driver is.

7. Click **open** and **ok.**

8. Select "**Trident Video Accelerator 3D Adapter V4.83040.83"**, then click **ok.**

9. Windows will display "**Third party Drivers**" window, click **yes** to proceed.

10. Click **ok** and restart.

After restarting the system, you may want to set screen resolution and color depth to have optimum viewing. Go back to the **Display** icon, and then go to the **Settings** folder. Then, adjust resolution and color depth in accordance with your preference

ⓘ The VGA driver for **Trident Cyberbladei1** is already pre-installed in Windows 2000. Therefore, you don't need to install VGA driver.

2.2.4 Installing the Audio Device Driver

Your notebook computer uses the AC97 software CODEC Audio.

Installing Audio Driver for Windows 98/2000

1. Boot Windows from your hard disk and insert the disc containing the Audio driver.
2. Click the **Start** button, and then click **Run**. In the Run dialog box, click the **Browse** button and navigate into the directory where the Audio driver is. Then, run **"Setup.exe".**
3. Click **OK** button to run the setup program.
4. The Welcome message box appears. Click **Next** to continue with the next step.
5. With **"Install"** selected, click **Next** to begin installing the audio driver.
6. With **"Yes, I want to restart my computer now"** selected, click **Finish** to complete the audio installation.

Installing Audio Driver for Windows NT4.0

1. Boot Windows from your hard disk and insert the disc containing the Audio driver.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click the **Browse** button and navigate into the directory where the Audio driver is. Then, run **"Setup.exe".**
3. Click **OK** button to run the setup program.
4. The Welcome message box appears. Click **Next** to continue with the next step.
5. With **"Install"** selected, click **Next** to begin installing the audio driver.
6. An information window will appear, click **ok.**
7. Click **Add.** Select "**VIA MIDI External Port Device**" and then click **ok.**
8. Click **Add.** Select "**VIA PCI Audio Controller**" and then click **ok.**
9. Windows will prompt you if you want to install the joystick driver for Microsoft Sidewinder 3D Pro Joystick. If you have the joystick, click **Yes** and then click **ok.**
10. Click **Add** and then choose the Microsoft Sidewinder 3D Pro Joystick driver.

11. Click **ok.**

12. With **"Yes, I want to restart my computer now"** selected, click **Finish** to complete the audio installation.

2.2.5 Installing the PCMCIA Device Driver

Your notebook computer incorporates a true 32-bit PCMCIA CardBus controller. The PCMCIA controller is pre-configured during Windows 98 / 2000 installation. Inside the System Device Manager, you will find two identical **Texas Instruments PCI-1225 CardBus Controller** device line.

2.2.6 Installing the Infrared (Optional)

Your notebook PC incorporates an IR port that provides wireless data communication with other infrared device.

To use the IR feature, you need to enter BIOS setup and go to the Advanced menu. Select I/O Device Configuration and enable Infrared port.

Windows 98 / 2000 will automatically detect and install the IR port.

2.2.7 Installing the USB Driver

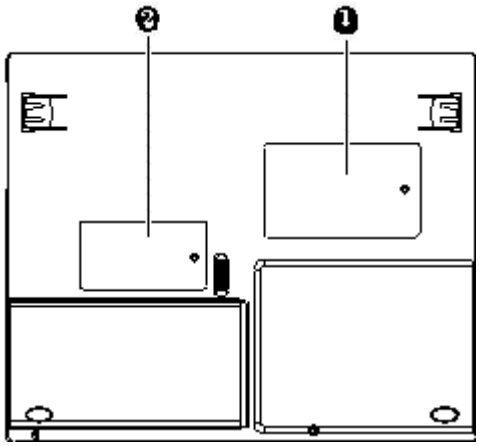
Windows 98 / 2000 will automatically detect and install the USB driver. Check the Universal serial bus controller on the System Device Manager Properties, it should show as follows:

- **Intel 82371AB/EB PCI to USB Universal Host Controller**
- **USB Root Hub**

2.2.8 Installing the Internal Modem

Your notebook computer may come with an optional internal modem. The internal modem is a 56Kps V.90 MC-97 software modem.

Installing Internal Modem for Win98

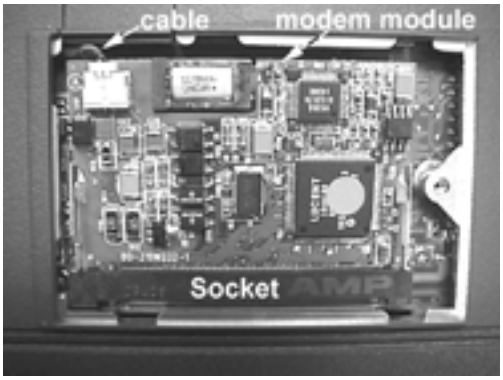


❶	DIMM door	❷	Int. modem / LAN door

1. Make sure the system is powered off and that no peripheral devices are attached. Turn the system over and locate the screw on the internal modem / LAN door.

2. Remove the screw and open the internal modem / LAN door. Locate the alignment notch on the modem module.

3. Locate the modem module socket. Align the notch with the notch in the socket connector and insert the module as follows:
   - Insert the cable into the modem module.
   - Hold the modem module at an angle and align the modem module connector with the socket in the system. Push the connector into the socket.
   - Press down on the edge of the modem module until the locking tabs on the sides snap into place, securing the module.



4. To remove the modem module, press the locking tabs away from the sides of the module until the module pops up. Then, remove the modem module.

5. Reassemble the notebook components as follows:
   - Put the internal modem / LAN door back.
   - Replace the screw.
   - Turn the system over.

6. Boot Windows 98 from your hard disk and insert the driver CD containing the modem driver.

7. Click the **Start** button, and then click **Run.** In the Run dialog box, click **Browse** button and navigate into the directory where the modem driver is. Then, run **"Setup.exe"**.

8. The Welcome message box appears. Click **Next** to begin installing modem driver.

9. With **"Yes, I want to restart my computer now"** selected, click **Finish** to complete the modem installation.

Installing Internal Modem for Windows 2000

1. After the internal modem module is carefully inserted into the socket, boot to Windows 2000 and insert driver CD containing internal modem driver for Windows 2000.

2. Click the **Start** button, and then click **Run**. In the Run dialog box, click **Browse** button and navigate into the directory where the modem driver is. Then, run **"Setup.exe"**.

3. Click **OK** to begin installing modem driver. A message box will appear asking you if you want to continue installation. Click **Yes**.

Installing Internal Modem for Windows NT4.0

1. After the internal modem module is carefully inserted into the socket, boot to Windows NT4.0 and insert the driver CD containing internal modem driver for Windows NT4.0

2. Click the **Start** button, and then click **Run**. In the Run dialog box, click **Browse** button and navigate into the directory where the modem driver is. Then, run **"Setup.exe"**.

3. You will see the Modem installation window, click **Next**. Select "Install New Modem Driver and Components", click **Next**.

4. With **"Yes, I want to restart my computer now"** selected, click **Finish** to complete the modem installation.

2.2.11 Installing Internal LAN

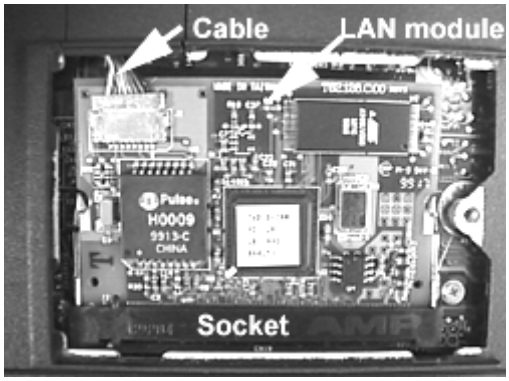
Your notebook computer may come with an optional internal LAN, which uses the Intel 82559 chip.

Installing Internal LAN for Win98 RTM

1. Make sure the system is powered off and that no peripheral devices are attached. Turn the system over and locate the screw on the internal modem / LAN door.

2. Remove the screw and open the internal modem / LAN door. Locate the alignment notch on the LAN module.

3. Locate the LAN module socket. Align the notch with the notch in the socket connector and insert the module as follows:
   - Insert the cable into the LAN module.
   - Hold the LAN module at an angle and align the LAN module connector with the socket in the system. Push the connector into the socket.
   - Press down on the edge of the LAN module until the locking tabs on the sides snap into place, securing the module.



4. To remove the LAN module, press the locking tabs away from the sides of the module until the module pops up. Then, remove the LAN module.

5. Reassemble the notebook components as follows:
   - Put the internal modem / LAN door back.
   - Replace the screw.
   - Turn the system over.

6. Boot Windows 98 from your hard disk and insert the driver CD containing the LAN driver for Windows 98.

7. Click the **Start** button, then click **Settings**, and **Control Panel**. Double click **System** and click **Device Manager** tab. Under **Other devices,** you'll see **PCI Ethernet Controller**. Select it and click **Remove** button.

8. Click **Refresh** button. The **Add New Hardware Wizard** will detect PCI Ethernet Controller. Click **Next** to search for the driver.

9. Click **Next** to continue.

10. Tick **Specify a location** and click **Browse** button. Then, navigate into the directory where the LAN driver is and click **OK**.

11. Click **Next** to continue with the next step.

12. Click **Next** to accept the updated driver for Intel 82559 Fast Ethernet LAN driver.

13. Click **Next** to continue with LAN driver installation.

14. When Windows prompt you for **Intel PRO Adapter CD-ROM**, navigate into the directory where the LAN driver is and click **OK**.

15. Click **Finish** to complete installation.

16. Restart Computer to finish setting up LAN.

ⓘ If you're using Windows 98 Second Edition or Windows 2000, you don't need to install the driver for internal LAN (Intel 82559 PCI Ethernet Adapter) since it is already pre-installed in Windows 98SE and Windows 2000. The above LAN driver installation is only applicable on Windows 98 RTM version.

Installing Internal LAN for Windows NT4.0

1. After the internal LAN module is carefully inserted into the socket, boot to Windows NT4.0 and insert the disc containing internal LAN driver for Windows NT4.0

2. Click the **Start** button, then click **Settings**, and **Control Panel**. Double click **Network** and click **Yes** to install network.

3. With Wired to Network box ticked on, click **Next.**

4. Click **Select from list** button and click **Have disk** button. Type the directory where the driver is and click **OK.**

5. Click **OK** and click **Next** to proceed with next step.

6. Select **Network Protocols** you need and click **Next** to proceed to next step.

7. Select **Network Services** and click **Next** to proceed to next step.

8. Click **Next** to continue installation.

9. When Windows prompts you that Setup needs to copy some Windows files, insert Windows NT disc and type **"E:\i386"**. Then, click **Continue.**

10. Select **"Intel PRO PCI Adapter"** and click **Continue.**

11. Windows will ask you if you have DHCP server on your network. Ask your system administrator and click either **Yes** or **No.**

12. After enabling or disabling network bindings, click **Next** to continue with the next procedure.

13. Click **Next** to start network.

14. Windows might ask you for your computer name, workgroup or domain. Input your data and click **Next.**

15. Finally, click **Finish** and click **Yes** to restart computer.

2.2.12 Installing EZButton Driver

Following is the procedure for installing the Internet and e-mail button driver.

Installing EZButton driver for Windows

1. Boot Windows from your hard disk and insert the diskette containing the Internet/e-mail button driver.

2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and navigate into the directory where the EZButton driver is. Then, run **"Setup.exe"**.

3. The **Welcome** dialog will appear. Click **Next** to continue with the installation.

4. If you wish to install the driver in a different directory, click **Browse**. Otherwise, click **Next** to continue with the next step.

5. The **Select Program Folder** dialog box will appear. To setup icon on a different folder, you may type a new folder name or select one from the existing Folder list. Click **Next** to continue.

6. Click **Finish** to complete installation.

2.3 System Upgrades

This section provides an easy step in doing system upgrades for your notebook computer.

2.3.1 Jumper Settings

This section provides a jumper setting lists of configuring the notebook.

S4 – CPU/PCI BUS CLOCK (S4 switch is located above the CPU socket)

Pos #4	Pos #3	Pos #2	Pos #1	CPU	PCI
OFF	OFF	OFF	OFF	91.5	30.5
OFF	OFF	OFF	ON	66.82	33.41
OFF	OFF	ON	OFF	96.22	32.07
OFF	OFF	ON	ON	90	33
OFF	ON	OFF	OFF	133.33	33.33
OFF	ON	OFF	ON	83.1	27.77
OFF	ON	ON	OFF	95	31.67
OFF	ON	ON	ON	100	33.3
ON	OFF	OFF	OFF	75	37.5
ON	OFF	OFF	ON	137	34.25
ON	OFF	ON	OFF	83.31	41.65
ON	OFF	ON	ON	105	35
ON	ON	OFF	OFF	109.99	36.66
ON	ON	OFF	ON	114.99	38.33
ON	ON	ON	OFF	120	40
ON	ON	ON	ON	124	41.33

S3 – K/B ID (S3 is located beside the memory socket)

K/B type	Pos #2	POS #3
US KEYBOARD	OFF	OFF
JP KEYBOARD	OFF	ON
GR KEYBOARD	ON	OFF
RESERVE	ON	ON

Password Override (CMOS/RTC Data) Jumper Setting (SW4)

SW3	Pos#4
RTC Battery Normal	Off
Clear (RTC) DATA	On

Before doing password override, take off AC adapter and battery first.

2.3.2 CPU Upgrade Procedure

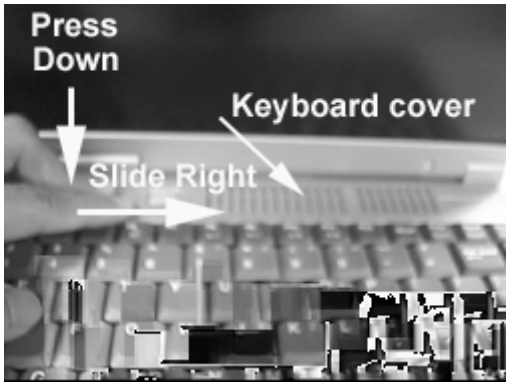
The A440 series features a Socket 370 FCPGA connector for Intel Celeron and Pentium III Processors. The socket is located on the center of the system motherboard. You need to set the CPU speed jumper settings before or after you replace another CPU. Refer to the previous section on jumper settings.

How to Access the CPU Socket

To install or replace the CPU, follow the steps below:

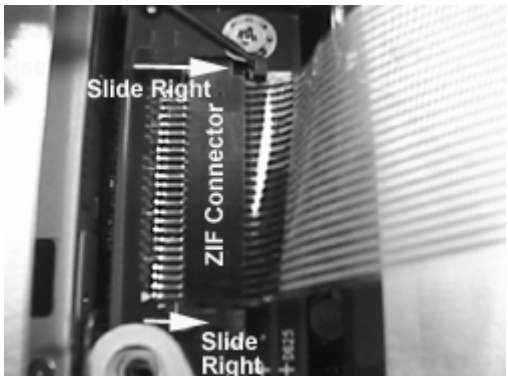
1. Turn off the system and remove both AC adapter and the battery pack from the notebook unit.

2. Remove "keyboard cover" by gently pressing on it and sliding it towards right direction.

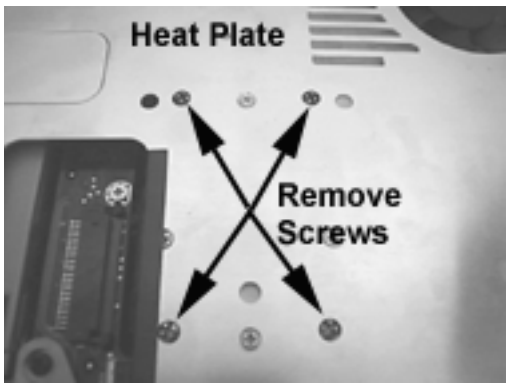


3. Lift the keyboard and tilt it towards the LCD panel.

4. Release keyboard cable by sliding the ZIF connector towards right direction.

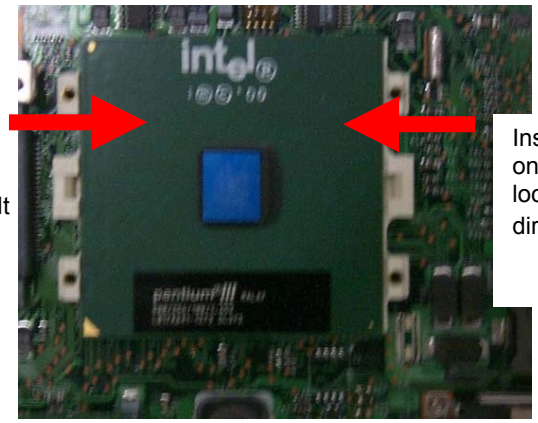


5. Remove four screws as shown in the picture below. Then, remove heat-sink by slightly lifting it up and sliding it towards left direction. Be careful with the CPU fan cable that is still connected on the motherboard. Unplug the CPU fan cable.



6. Using a flat screwdriver, insert it onto the CPU socket and tilt it towards to left direction to unlock CPU from the socket.

Insert flat screwdriver onto the CPU socket. To unlock CPU, Tilt it to the right direction.



Insert flat screwdriver onto the CPU socket. To lock CPU, Tilt it to the left direction.

7. Remove CPU and insert the preferred CPU.

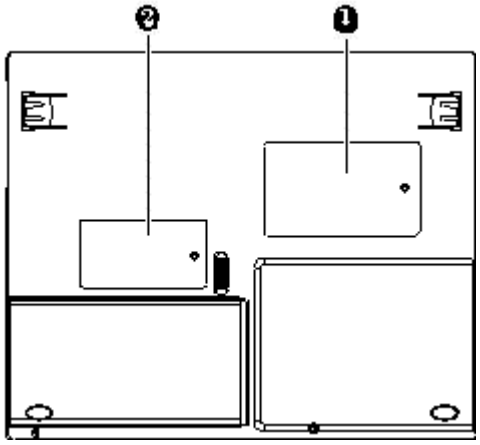
8. Insert a flat screwdriver onto the CPU socket and tilt it towards left direction to lock CPU onto the socket.

9. Set jumper settings in accordance with the tables in section 2.3.1 and place back the heat plate, keyboard and keyboard cable.

2.3.3 Memory Upgrade Procedure

The notebook computer offers two 64-bit memory slot using 144-pin SODIMM (Small Outline Dual Inline Memory Module) at 32MB, 64MB, and 128MB PC-100 SDRAM. Two memory slots are found inside the memory compartment. The memory compartment is located on the underside of your computer inside the memory compartment. The notebook has no memory on-board so you should have at least one SODIMM module inserted.

With two memory slots, you can have several combinations up to 256MB.



❶	DIMM door	❷	Int. modem / LAN door

Memory Compartment

Using the Memory Slot inside the Memory Compartment

Follow the steps below on how to upgrade the memory modules:

1. Make sure the system is powered off and that no peripheral devices are attached.

2. Turn the system over and locate the screw on the memory compartment.

3. Remove the screw and open the memory compartment. Locate the alignment notch on the module.

4. Locate the memory module socket. Align the notch with the notch in the socket connector and insert the module as follows:
   - Hold the SODIMM at a 60-degree angle and align the SODIMM connector with the socket in the system. Push the connector into the socket.
   - Press down on the edge of the SODIMM until the locking tabs on the sides snap into place, securing the module.

5. To remove a SODIMM, press the locking tabs away from the sides of the module until the module pops up. Then, remove the SODIMM.

6. Reassemble the notebook components as follows.
   - Put the DIMM door back.
   - Replace the screw and turn the system over.

2.3.4 Hard Disk Upgrade Procedure

The notebook provides a built-in hard disk for the primary IDE controller. The HDD is an industry standard 2.5" IDE disk drive and can be upgraded with another standard 2.5" HDD.

To remove the built-in hard disk:

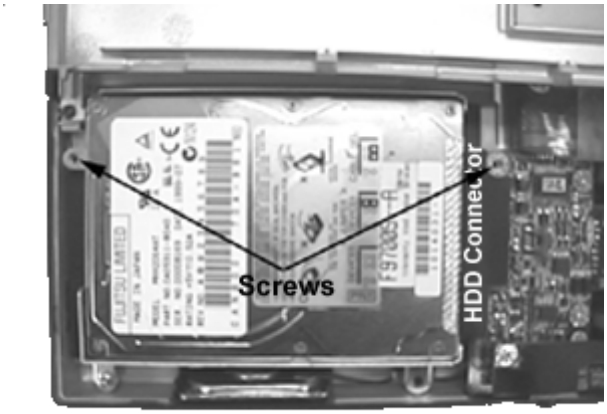
1. Remove the two screws securing the palm-rest cover underneath the system base unit.

2. Remove the palm-rest cover by slowly unsnapping each section of the palm-rest cover from the base unit.

3. When you have remove the entire palm-rest cover, simply flip over the touchpad panel to the keyboard. You will find the built-in hard disk secured with one screw at the upper left corner of the hard disk and another screw at the upper right corner of the hard disk. Remove the screw and carefully pull the hard disk module from the connector on the daughterboard.

4. Remove the four screws securing the hard disk to the bracket connector and replace with another one.

5. Plug in the hard disk module to the connector on the daughterboard and secure the screw on the upper left corner of the hard disk.



Hard Disk Drive Location

2.3.5 System BIOS Upgrade Procedure

The notebook supports EPROM Flash BIOS that allows you to easily update the system BIOS using the Phoenix BIOS Flash utility program called "**PHLASH.COM**". This program runs under MS-DOS and requires the system not to load high memory like **HIMEM.SYS**. It also needs the "**PLATFORM.BIN**" file in order to activate.

Follow the steps below on how to update the system BIOS:

1. Prepare a clean bootable diskette without loading the HIMEM.SYS. Copy the files **PHLASH.COM** and **PLATFORM.BIN** into the diskette along with the BIOS ROM file.

2. Restart the computer and boot from the diskette. At the DOS prompt, type the command "**PHLASH <*BIOSfile*.ROM>**" to activate Flash BIOS programming utility. The computer will then start to update the system BIOS inside the notebook.

3. After programming is complete, the system will prompt you to press any key to shutdown the computer. The BIOS version is displayed inside the BIOS Setup Main menu. Press <F2> after power on to run CMOS Setup program.

   BIOS Version : 0.3B-0216-6211

ⓘ It is very important not to power off the system whenever the FLASH BIOS program is running. Otherwise, the system may not be able to power on and you need to replace the BIOS EPROM chip from another working notebook.

ⓘ Always plug in the AC adapter when updating the BIOS.