

Installation and Upgrade

2.1 Overview

This chapter provides guidelines on installing the device drivers for the built-in features of the MD02. Most of the driver installation procedures mentioned here are only for Windows 2000 and Windows XP. 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:

- VGA Driver – Windows 2000 / XP
- Audio Driver – Windows 2000 / XP
- Touch Pad Driver – Windows 2000 / XP
- Chipset Driver – Windows 2000 / XP
- Data Fax Modem – Windows 2000 / XP
- LAN driver– Windows 2000 / XP
- Wireless LAN driver – Windows 2000 / XP
- Wireless LAN Utility
- Speed Step 3.0 driver – Windows 2000

i Visit FIC Support website [ftp://pcg.fic.com.tw/NBTECH/](http://pcg.fic.com.tw/NBTECH/) for the latest driver updates.

2.2.1 Installing Windows 2000 / XP from CD / DVD ROM

This section provides Windows 2000 installation guide from the CD-ROM or DVD-ROM device.

Installing Windows 2000 from CD-ROM / DVD-ROM

The easiest way to install Windows 2000 is to boot from Windows 2000 start-up disk. With Windows 2000 start-up disk, you don't need to install CD-ROM driver since the start-up disk can support virtually all CD-ROM device. Insert Windows 2000 Installation CD into CD-ROM drive and run "**setup.exe**".

If you don't have Windows 2000 start-up disk, you need to install CD-ROM /DVD-ROM driver under DOS. Then, insert Windows 2000 Installation CD into CD-ROM drive and run "**setup.exe**".

Installing Windows XP from CD-ROM / DVD-ROM

To install Windows XP directly from your CD-ROM, insert the Windows XP installation CD into CD-ROM drive with following the instructions on the screen to finish the installation. You could go to **Boot** menu of **BIOS** setup menu to confirm the

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priority of boot device. Use arrow key to select "ATAPI CD-ROM Drive", and then use "+" or "-" to move it to the top. Go to **Exit** menu and select "**Exit Saving Changes**".

2.2.2 Installing the VGA Device Driver

Your notebook computer uses the high-performance VGA controller, which is an AGP 4x video local bus, 2D/3D Graphic Engine. Following is the procedure for installing the VGA Driver for Windows 2000 and Windows XP :

Installing VGA Driver for Windows 2000

1. Boot Windows 2000 from your hard disk and insert the disc containing the VGA driver for Windows 2000.
2. Click the **Start** button, then click **Settings**, and **Control Panel**. Double click **System** and click **Device Manager** tab. Under **Display Adapters**, you'll see **Standard PCI Graphics Adapter (VGA)**. Select it and double click it.
3. Choose **Driver** button and then click **Update Driver**, **Next**, and **Next** again to search for the driver.
4. Tick **Specify a location** and click **Browse** button. Then, navigate to "**Drivers\Win2000\VGA**" and click **Next**.
5. Click **Next** to accept the updated driver for **S3 Graphice Twister** driver.
6. Click **Next** to continue with VGA driver installation.
7. Click **Finish** to complete installation.
8. Restart Computer to finish setting up VGA.

Installing VGA Driver for Windows XP

1. Click the **Start** button, then point to **Settings**, and click **Control Panel**.
2. Double-click on the **System** icon, **Hardware**, and then click on the **Device Manager** folder tab.
3. Under the **Other Devices** line, you will find the **Video Controller (VGA compatible)**, click **Uninstall**, **OK**, and then **Scan for Hardware Changes** buttons to appear the **New Hardware Found** Message Box.
4. In the Found New Hardware Wizard message box which shows searching **Video Controller (VGA compatible)** driver. Click **Next** to proceed the further step.
5. Select "**Search for a suitable driver for my device**", and click **Next**.
6. Tick on "**Specify a location box**", then, click **Next** and **Browse** buttons, and then navigate to the VGA driver location as "**Drivers\ WinXP\VGA**".
7. Click **OK** and **Next** to begin searching the driver. The Add New Hardware will found **S3 Graphice Twister**.
8. Click **Next** to continue installing the driver.
1. Click **Finish** button to finish installing VGA driver and Click **Yes** to restart the computer.

2.2.3 Installing the Audio Device Driver

Your notebook computer uses ALC201A Audio controller.

Installing Audio Driver for Windows 2000

1. Boot Windows 2000 from your hard disk and insert the disc containing the Audio driver for Windows 2000.
2. Click **Start**, **Settings**, and **Control Panel**. Double click **System** and click **Device Manager** tab. Under **Other Devices**, you'll see **PCI Multimedia Audio Device**.

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Select it and click **Remove** button.

3. Click **Refresh** button. The **Add New Hardware Wizard** will detect **PCI Multimedia Audio Device**.
4. Click **Next** to search for the driver. Click **Next** to continue.
5. Tick **Specify a location** and click **Browse** button. Then, navigate to "**Drivers\Win2000\Audio**" and click **Next**.
6. Click **Next** to accept the updated driver for **INTEL AC97 Audio** driver.
7. Click **Finish** to complete installation. Restart Computer to finish setting up Audio.

Installing Audio Driver for Windows XP

1. Click the **Start** button, then point to **Settings**, and click **Control Panel**.
2. Double-click on the **System** icon, **Hardware** and then click on the **Device Manager** folder tab.
3. Under the **Other Devices** line, you will find the **Multimedia Audio Controller**, click **Uninstall**, **OK**, and then **Scan for hardware changes** buttons to appear the **New Hardware Found** Message Box.
4. In the Found New Hardware Wizard message box which shows searching **Multimedia Audio Controller** driver. Click **Next** to proceed to the next step.
5. Select "**Search for a suitable driver for my device**", and click **Next**.
6. Tick on "**Specify a location box**", then click **Next** and **Browse** buttons, and navigate to the Audio driver location as "**Drivers\ WinXP\Audio**".
7. Click **OK** and **Next** to begin searching the driver. The Add New Hardware will found **Intel AC97 Audio**.
8. Click **Yes** to continue installing the driver. Click **Finish** button to finish installing Audio driver.

2.2.4 Installing Touch Pad Driver

Following is the procedure for installing Synaptics touch pad driver.

Installing Touch Pad Driver for Windows 2000 / XP

1. Boot Windows from your hard disk and insert the diskette containing touch pad driver.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and navigate to the directory as "**Driver\Win2000\Touch Pad\setup.exe**", **WinXP** " path according to your Operating System and run "**Setup.exe**".
3. Execute the setup program and then select the language for this installation. After that, a **Welcome** dialog box appears.
4. Click **Next** continuously three times when the screen appears the **Next** button.
5. Click **OK** to restart your system.

2.2.5 Installing Internal Modem Device Driver

Your notebook computer may come with an optional internal modem. The internal modem is a 56Kps V.90 Askey Data Fax modem.

Installing Internal Modem for Windows 2000 / XP

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1. Boot Windows from your hard disk and insert the disc containing the Modem driver for Windows.
2. Click the **Start** button and then click **Run**. In the Run dialog box, click **Browse** button and navigate to the directory as "**\\driver\\Win2000\\MODEM\\setup.exe**" where the modem driver is located. . Please change "**Win2000**" to other path named as **WinXP**... to fit the operating system you are using.
3. Click **OK** to process the installation of modem driver. Follow the instruction to finish the installation.
4. With "**Yes, I want to restart my computer now**" selected, click **Finish** to complete the modem installation.

2.2.6 Installing Internal LAN Device Driver

Your notebook computer may come with an optional internal LAN, which uses the Intel 82559 chip. Please follow the procedures below for installing the LAN driver:

Installing Internal LAN for Windows 2000

1. Boot Windows 2000 from your hard disk and insert the disc containing the LAN driver for Windows 2000.
2. 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.
3. Click **Refresh** button. The **Add New Hardware Wizard** will detect PCI Ethernet Controller. Click **Next** to search for the driver.
4. Click **Next** to continue.
5. Tick **Specify a location** and click **Browse** button. Then, navigate to "**\\Drivers\\Win2000\\LAN**" and click **Next**.
6. Click **Next** to accept the updated driver for **Intel 82562EZ Fast Ethernet LAN** driver.
7. Click **Next** to continue with LAN driver installation.
8. Insert the disk labeled "**Windows 2000 Second Edition CD-ROM**", and then click **OK**.
9. Type "**\\Win2000**", then click "**OK**".
10. Click **Finish** to complete installation.
11. Restart Computer to finish setting up LAN.

Installing Internal LAN for Windows XP

1. Click the **Start** button, then point to **Settings**, and click **Control Panel**.
2. Double-click on the **System** icon, **Hardware** and then click on the **Device Manager** folder tab.
3. Under the **Other Devices** line, you will find the **Ethernet Controller**, click **Uninstall**, **OK**, then **Scan for hardware changes** buttons to appear the **New Hardware Found** Message Box.
4. In the Found New Hardware Wizard message box which shows searching **Ethernet Controller** driver. Click **Next** to proceed to the next step.
5. Select "**Search for a suitable driver for my device**", and click **Next**.
6. Tick on "**Specify a location box**". Then, click **Next** and **Browse** buttons and navigate to the LAN driver location as "**\\Drivers\\WinXP\\LAN**". Click **OK** and

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Next to begin searching the driver.

7. The Add New Hardware will found **Intel 82562EZ Fast Ethernet** . Click **Yes** to continue installing the driver.

Click **Finish** button to finish installing LAN driver.

2.2.7 Installing Wireless LAN Utility

Following is the procedure for installing Wireless LAN Utility.

Installing Wireless LAN Utility for Windows XP / 2000

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.
2. Click the **"Browse"** button and specify the directory as **"E:\Drivers\Wireless LAN Utility\Autorun.exe "**.
3. Click **"Install Software"** to install utility.
4. Click **"Next"** to process the further step continuously when screen displays this command.
5. Tick the option **" I accept the terms in the license agreement "**, and click **"Next"** to continue.
6. Tick the option **"Typical"**, and click **"Next"** to continue.
7. Pressed **"Install"** to continue.
8. Press **"Finish"** to finish the installation.

2.2.8 Installing Speed step3.0 Driver

Installing Speed step 3.0 driver for Windows 2000

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as **"E:\Drivers\Win2000\Speed Step\DISK1\Setup.exe"**
3. Click **"OK"** to implement the setup program to install this driver.
4. Click **"Next"** to continue .
5. Press **"Finish"** to restart your system.

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.

DSW1

Keyboard Type Select

K/B Type	Pos #1	POS #2
US KEYBOARD	OFF	OFF
JP KEYBOARD	ON	OFF
UK KEYBOARD	ON	ON

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DVDSEL

ODD select	Pos #5
KME UJDA745 DVD/CD-RW Combo	ON

BIOS Crisis

BIOS Crisis	Pos#4
Default	OFF
BIOS Crisis	ON

Password Override (CMOS / RTC Data) Jumper Setting

CMOS clear select	Pos#6
RTC Battery Normal	OFF
Clear (RTC) DATA	ON



Figure 2-1 Location of DSW1

2.3.2 CPU Upgrade Procedure

The NB02 features Mobile Intel Pentium-M FCPGA Processors. It is located on the upper right side of the system motherboard.

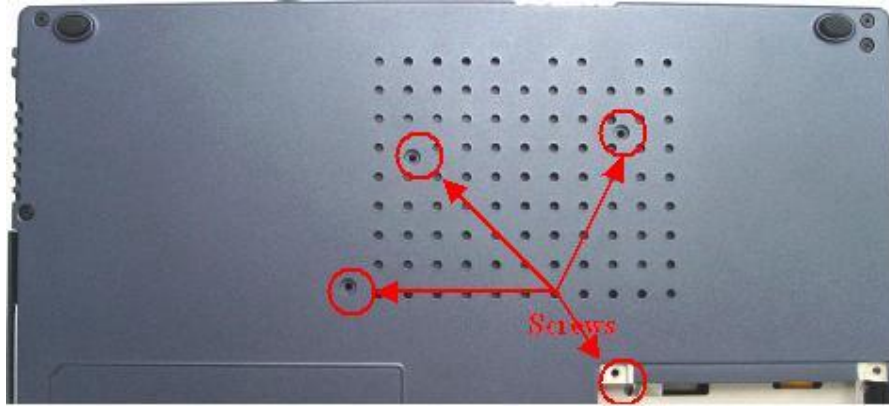
How to Access the CPU Socket

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.

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2. There are four screws on the bottom case and that should be removing as the picture indicated.



3. Remove keyboard cover by gently bending it and sliding it towards in front of you.



4. Lift the keyboard and tilt it towards the LCD panel.
5. Release keyboard cable by sliding the ZIF connector towards up direction.



Figure 2-3 Remove keyboard

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6. Release five screws as shown in the picture below, and then remove Middle plate.

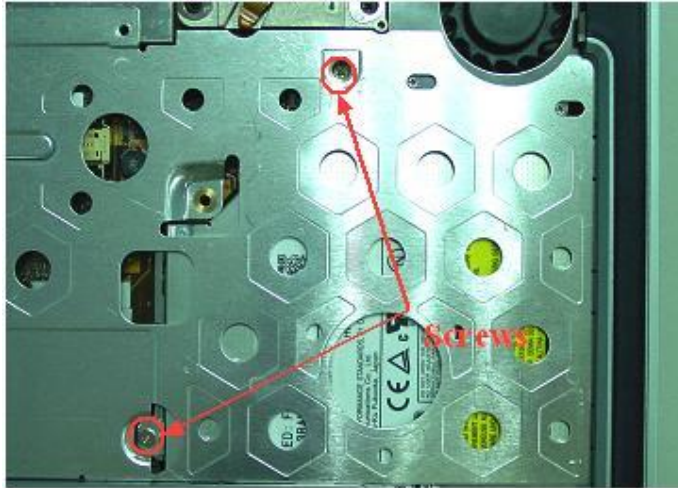


Figure 2-4 Remove Middle plate

7. Release four screws and one cable as shown in the picture below, and then remove heat sink plate and Fan.



Figure 2-5 Remove heat sink plate and Fan

8. Use a flat screwdriver to unlock CPU.

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Figure 2-6 Remove CPU

9. Remove CPU and insert the preferred CPU.
10. Use a flat screwdriver to lock CPU.
11. Place back the heat plate and keyboard cover. Boot on the computer, and then BIOS will automatically detect the type of the CPU which just be installed.

2.3.3 Memory Upgrade Procedure

The notebook computer offers two memory slot using SODIMM (Small Outline Dual Inline Memory Module) at 128MB, 256MB, 512MB and 1GB DDRAM. Two memory slots are found inside the memory compartment. The memory compartment is located on the underside of your computer inside the memory compartment. With two memory slots, you can have several combinations up to 2GB.

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.

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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.

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

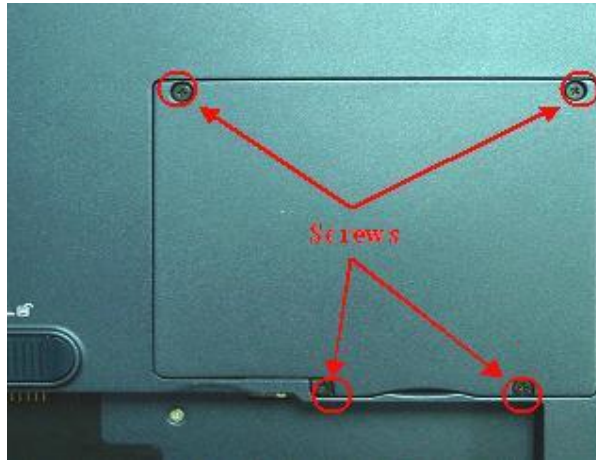


Figure 2-8 Remove HDD module

3. Remove the HDD module from the base unit.
4. Remove four screws of frame HDD bracket plate.

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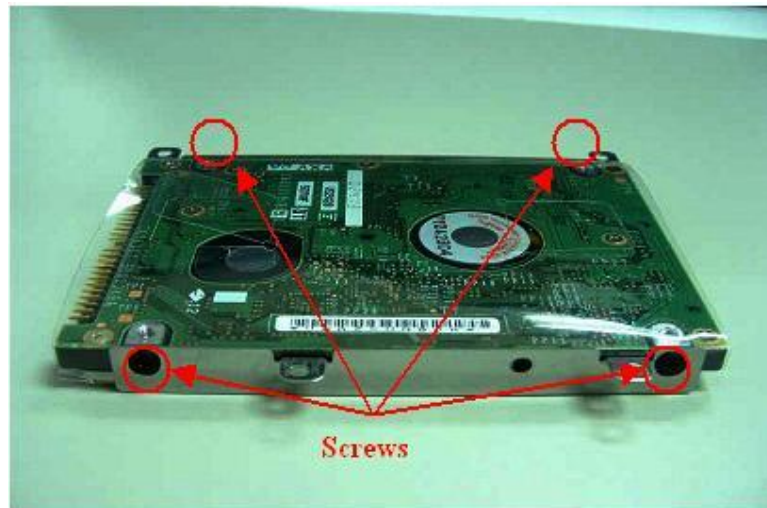


Figure 2-9 Screws Locations of the frame HDD bracket plate

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 : 1.0A-0716-0724

- i**

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.
- i**

Always plug in the AC adapter when updating the BIOS.