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# 830CN 使用手冊

*AMD Socket A Athlon/Duron* 處理器主機板

*NO. G03-830CNRIC*

發佈日期 2001 年 3 月

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## 使用者需知

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本手冊包含了使用 830CN 主機板所必須的所有資訊，並且我們確保本手冊能完全滿足使用者的需求，如有任何改變或修正將不另行通知。廠商提供本手冊是不帶任何方式的擔保，而且將不對一切直接的、間接的、特殊的、偶然的或是因此而產生的損害（包括利潤損失、商業損失、使用數據時的損失、商業中斷等等）負責。

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## 手冊版本資訊

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版本	版本記錄	日期
1.0	第一版	2001年3月

## 項目表

- 830CN 主機板
- IDE/Floppy 排線
- 主機板應用程式光碟片
- 第三和第四個USB 埠排線 (選配)
- COM2 排線
- 830CN 使用手冊

## AMD Athlon™/Duron™ 中央處理器的散熱解決方案 - 風扇

由於科技的日新月異，中央處理器 (CPU) 亦持續往更快速、更高的效能發展。因此在建置電腦系統時，散熱的處理變得越來越重要了，一個適當的散熱環境，是讓系統更加穩定及長期操作時的關鍵。提供適當散熱環境的最終目的，則在於維持中央處理器之溫度，能低於電腦機殼之最大特定溫度。

一個好的風扇，除了要有較高的轉速外，適當的散熱片面積亦是相當重要的因素。它可透過其表面之散熱片區域的範圍，集中來自中央處理器的高熱，並透過附加的風扇讓熱氣流傳導出去。除此之外，散熱膏亦能有效的將高熱由中央處理器傳輸到散熱片。為了達到散熱傳導的最佳效果，AMD 建議您使用散熱膏，並以固定夾將風扇附加在處理器上。

當您為系統選擇適當的風扇時，請參考以下網址中 AMD 所推薦與 AMD 處理器一起使用之風扇。

有關 AMD Athlon / Duron 處理器之散熱片及風扇銷售廠商，請至以下網址：

<http://www1.amd.com/products/duron/thermals>

<http://www1.amd.com/products/athlon/thermals>

## 第一章

### 830CN 主機板簡介

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## 1-1 主機板特性

830CN是為使用 AMD 新一代 Athlon/Duron 處理器而設計，採用 Socket-A 封裝設計且記憶體可擴充至 1.0GB。

此主機板藉由使用矽統科技 (SiS) 最新的 730SE 晶片組，經由整合高效能的北橋、高階2D/3D GUI 引擎、超級南橋，提供了一個高效能，低成本的方案供 Socket-A 系列處理器的系統使用。另外，經由整合型 Ultra AGP 技術、進階的128 位元圖形顯示介面以及最高可設定至 64MB 顯示記憶體的功能，SiS 730SE 可提供相當於 AGP 4X 效能以及每秒高達 2GB 之記憶體頻寬的顯示能力；而它內建之強大的 DVD 硬體解碼加速功能，更可讓 DVD 播放效果更具一定的流暢度。

830CN 同時還內建有整合型 AC'97 2.1 CODEC，能與Sound Blaster Pro®完全相容，給你帶來最佳音效品質及相容性。另外，它還內含2 個USB介面，可連結 4 個 USB 裝置 (經由加裝 2 個選購性的連結頭)，足以迎合未來對USB的需求。

本主機板除了提供 ULTRA ATA 100 介面以支援 ATA-100 的硬式磁碟機，以全面提高系統性能外，亦內建有硬體監控功能，來監控並保護你的電腦。

另外，830CN 在 BIOS 公用程式中還提供有CPU 外頻的設定，讓你可以每次遞增1MHz 的方式達到超頻的目的。

綜觀上述重點，此主機板除了提供有高階的性能，還同時滿足未來規範的需要，確實是您購買主機板的最佳選擇。

## 1-2 規格

規 格	說 明
設計尺寸	* Micro ATX 主機板架構，4 層板，尺寸：24.4x21.0cm
晶片組	* SiS 730SE 晶片組

<b>時脈產生器</b>	<ul style="list-style-type: none"> <li>* 支援 100/133 MHz 系統記憶體時脈</li> <li>* 33MHz PCI 匯流排</li> </ul>
<b>CPU 插座</b>	<ul style="list-style-type: none"> <li>* 支援 AMD Athlon 600MHz~1.2GHz 處理器</li> <li>* 支援 AMD Duron 600MHz~850MHz 處理器</li> <li>* 支援 100 MHz CPU F.S.B.</li> <li>* 支援 200MHz DDR (Double Data Rate) F.S.B.</li> <li>* 預留對未來 AMD Athlon/Duron 處理器的支援</li> </ul>
<b>記憶體插座</b>	<ul style="list-style-type: none"> <li>* 168-針DIMM插座 x 2</li> <li>* PC-100/PC-133 SDRAM</li> <li>* 可擴充至 1.0GB</li> <li>* 支援3.3V SDRAM DIMM</li> </ul>
<b>擴充插槽</b>	<ul style="list-style-type: none"> <li>* 3 個 32 位元 PCI 插槽</li> <li>* 1 個支援音效和數據機的 CNR 插槽</li> </ul>
<b>整合型 VGA</b>	<ul style="list-style-type: none"> <li>* 3D 圖形加速器</li> <li>* VGA 共享記憶體可經由 BIOS 選擇 8MB 到最高的 64MB</li> </ul>
<b>整合型 IDE</b>	<ul style="list-style-type: none"> <li>* 2個支援ULTRA DMA 33/66/100 的 Bus Master IDE 埠</li> </ul>
<b>音效</b>	<ul style="list-style-type: none"> <li>* 整合型AC'97數位式音效控制器</li> <li>* 內建 AC'97 Audio CODEC</li> <li>* 包含音效卡驅動程式及應用程式</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>* Award 2MB Flash ROM</li> </ul>
<b>多功能 I/O</b>	<ul style="list-style-type: none"> <li>* PS/2滑鼠和 PS/2 鍵盤介面</li> <li>* 1個軟碟驅動器</li> <li>* 1個並列埠</li> <li>* 2個串列埠</li> <li>* 2個USB介面</li> <li>* 2個USB 接頭 (排線為選購性配備)</li> <li>* 音效介面 (輸入、輸出、麥克風及搖桿介面)</li> </ul>

### 1-3 性能表

下列性能數據表是某些較為流行之基本測試程式的測試結果。這些數據僅供使用者參考，而且我們不保證與使用者自行測得的數值完全吻合（不同的硬軟體配置將導致不同的測試結果）。

中央處理器： AMD K7 900MHz FC-PGA package

記憶體： 128M SDRAM x2 (Hyundai GM 72V66841ET75)

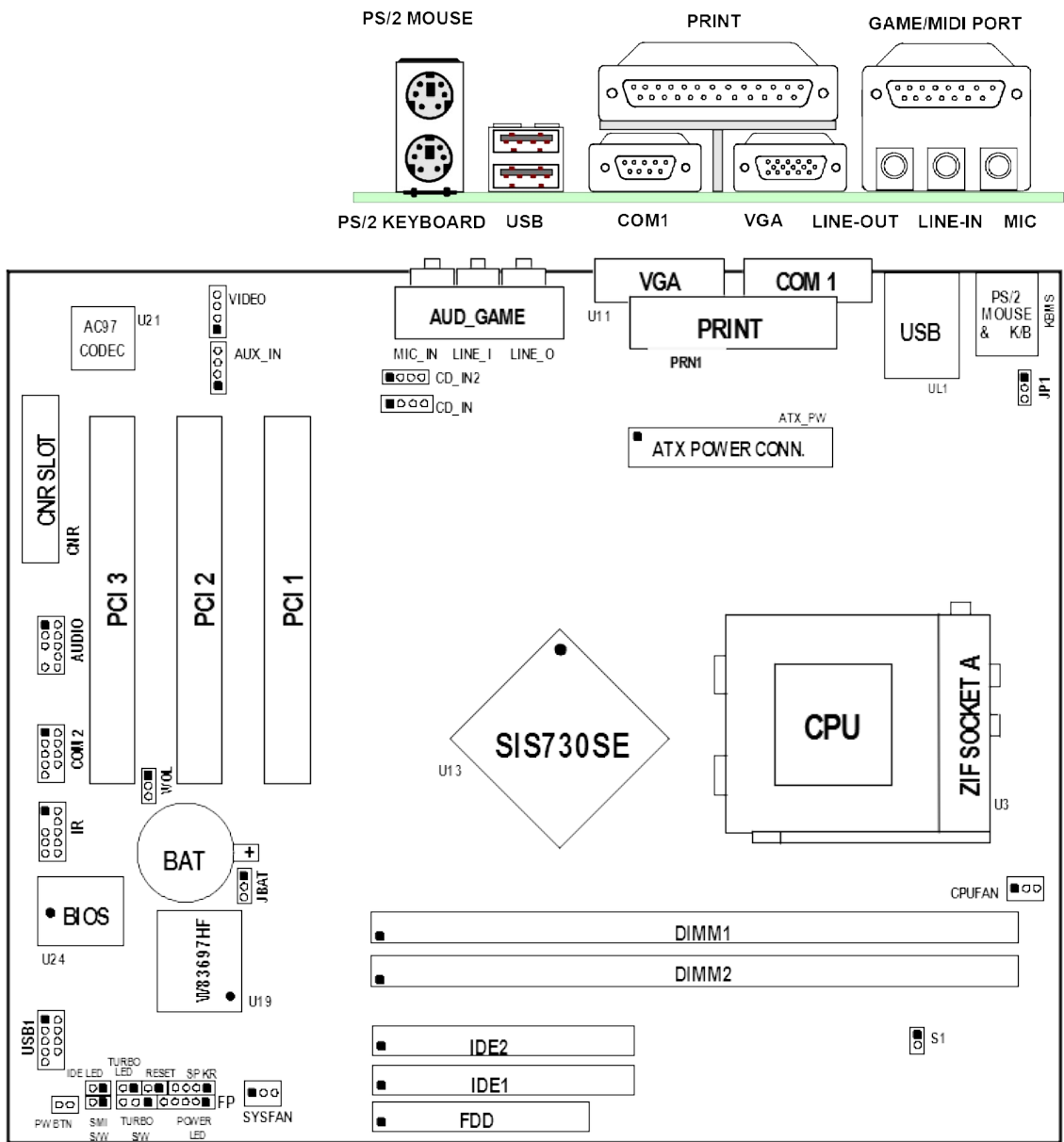
VGA 顯示卡 : On Board VGA  
 硬碟 : IBM DTLA-305040 (ATA-100)  
 BIOS: Award Optimal default  
 操作系統 : Win 98SE

### 性能測試報告

	Share 8M	Share 16M	Share 32M
<b>3D Mark 99</b>	1712	1708	1711
<b>3D Mark 2000</b>	754	711	733
<b>3D Winbench 99 V1.2</b>	469	475	476
<b>3D Winbench 2000</b>	16.1	18.8	19.8
<b>Final Reality</b>	5.04	5.02	5.00
<b>Winstone 99 V1.3</b>	28.7	28.5	28.7
<b>Content Creation Winstone 2000</b>	34.6	32.5	33.9
<b>Content Creation Winstone 2001</b>	38.2	37.6	36.7
<b>Business Winstone 2001</b>	32.1	31.9	31.7
<b>Winbench 99 :</b>			
CPU Mark 99	70.8	70.7	70.6
FPU Winmark 99	4810	4810	4800
Business Disk Winmark99	4570	4500	4630
Hi-end Disk Winmark99	16600	16500	17000
Business Graphic Winmark	208	227	227
Hi-end Graphic Winmark	675	886	884
<b>SYS Mark 2000 : SISMark 2000 Rating ( Internet Content Creation / Office Productivity )</b>			
Suites	152 (154/151)	153 (153/153)	153 (154/153)
Offical	152 (155/149)	153 (153/153)	153 (155/152)
<b>SISOFT Sandra 2000 :</b>			
CPU MIPS	2774	2773	2772
FPU MFLOPS	1186	1188	1188
CPU / Memory MB/S	252	252	252
FPU / Memory MB/S	297	297	297
<b>QUAKE3 :</b>			
DEMO1 FPS	25.9	26.2	26.2
DEMO2 FPS	24.7	24.9	25.0

### 1-4 設計圖及跳線設定





**跳線**

跳線	名稱	說明	頁碼
S1	CPU 及 SDRAM 時脈頻率設定	1x2-pin Block	p.8
JP1	使用鍵盤開機功能設定	3-pin Block	p.8

JBAT	清除 CMOS	3-pin Block	p.9
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## 連接器

連接器	名稱	說明	頁碼
ATX_PW	ATX 電源介面	20-pin Block	p.14
KBMS	PS/2 滑鼠及 PS/2 鍵盤介面	6-pin Female	p.14
UL1(USB)	USB 埠介面	2x4-pin Connector	p.14
PRN1(PRINT)	並列埠介面	25-pin Female	p.14
VGA	VGA 介面	15-pin Female	p.15
AUD_GAME	音效及遊戲埠介面	3 phone jack + 15-pin Connector	p.15
COM1	串列埠介面	9-pin Connector	p.15
FDD	軟碟介面	34-pin Block	p.16
IDE1	第一個 IDE 介面	40-pin Block	p.16
IDE2	第二個 IDE 介面	40-pin Block	p.16

## 接頭

Header	Name	Description	Page
COM2	COM2 通信接頭	9-pin Block	p.17
USB1	USB 連接埠介面	9-pin Block	p.17
IDE LED	IDE 運轉指示燈	2-pin Block	p.17
TURBO LED	Turbo LED 開關	2-pin Block	p.17
RESET	Reset 開關	2-pin Block	p.17
SPKR	喇叭線連接頭	4-pin Block	p.17
POWER LED	電源指示燈	2-pin Block	p.17
PW BTN	電源開關	2-pin Block	p.17
WOL	遠程網路啟動介面	3-pin Block	p.18
CPUFAN, SYSFAN	風扇電源接頭	3-pin Block	p.18
IR	IR 紅外線介面	9-pin Block	p.19
CDIN, CDIN2	CD 音效輸入介面	4-pin Block	p.19
AUX_IN	AUX-IN 音效輸入介面	4-pin Block	p.19
AUDIO	音效介面	9-pin Block	p.19

## 擴充插槽

Socket/Slot	Name	Description	Page
ZIF Socket A	AMD CPU 插槽	AMD Athlon/Duron CPU Socket	p.10
DIMM1, DIMM2	DIMM Module 擴充插槽	168-pin DIMM SDRAM Module Expansion Socket	p.11
PCI1, PCI2, PCI3	PCI 擴充插槽	32-bit PCI Local Bus Expansion slots	p.12
CNR	CNR 擴充插槽	Communication Network Riser slot Support Audio, Modem only	

# 第二章

## 硬體安裝

### 2-1 硬體安裝步驟

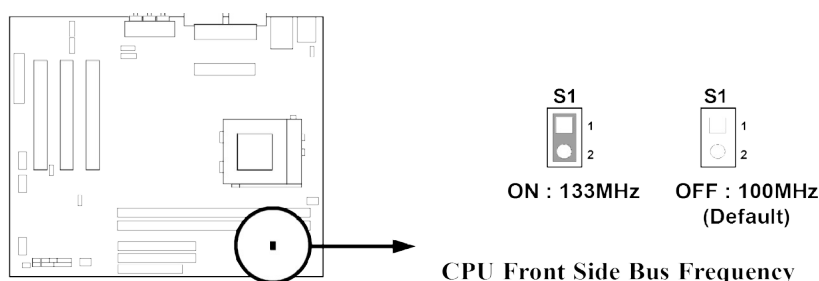
在使用你的電腦之前，你必須完成下列步驟：

1. 檢查主機板設定
2. 安裝 CPU
3. 安裝記憶體
4. 安裝擴充卡
5. 連接排線，面板電線及電源
6. 設定 BIOS 參數
7. 安裝軟體驅動程式及應用程式

## 2-2 檢查主機板的跳線設置

### 1. CPU 外頻設定 (2-pin): S1

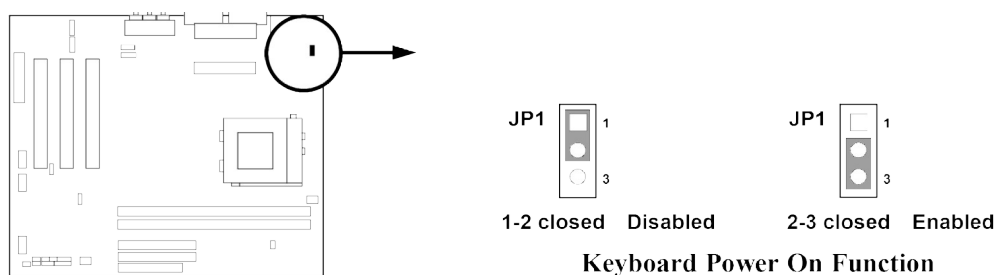
主機板的 CPU 時脈頻率可透過 S1 的跳線調整如下表：



\* 此主機板另外提供有經由軟體來設定 CPU 外頻的功能 (詳細資料請參閱 37 頁)。

### 2. 鍵盤開機功能設定 (3-pin) : JP1

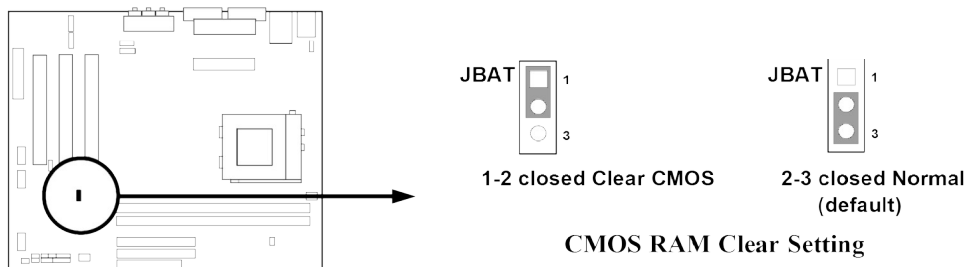
如果你想使用鍵盤來開機 (按下<>)，請將 JP1 設為 enable (使用該功能)，或disable (取消該功能)。該功能需要一個至少能供應 300mA 電源給+5VSB 引腳的ATX 電源供應器。初始值設為 disable。



### 3. 清除 CMOS (3-pin) : JBAT

主機板必須使用一個電池將主機板的配置資料保存在 CMOS RAM 裡，再透過跳帽將 JBAT 的 2-3 腳短路來存儲 CMOS 數據。

**注意！** 當系統斷電時，你可以將 1-2 腳短路來清除 CMOS 數據。然後再放回短接 2-3 腳。在系統通電時，切勿清除 CMOS，亦不可突然拔掉電源線以避免導致主機板損壞。



## 2-3 安裝 CPU

### 2-3-1 常用術語：

**晶片組(Chipset (or core logic))** - two or more integrated circuits which control the interfaces between the system processor, RAM, I/O devices, and adapter cards.

**處理器插槽 / 插座 (Processor slot/socket)** - the slot or socket used to mount the system processor on the motherboard.

**擴充插槽 (Slot (AGP, PCI, ISA, RAM))** - the slots used to mount adapter cards and system RAM.

**AGP 擴充槽 (Accelerated Graphics Port)** - a high speed interface for video cards; runs at 1X (66MHz), 2X (133MHz), or 4X (266MHz).

**PCI 擴充槽 (Peripheral Component Interconnect)** - a high speed interface for video cards, sound cards, network interface cards, and modems; runs at 33MHz.

**ISA 擴充槽 (Industry Standard Architecture)** - a relatively low speed interface primarily used for sound cards and modems; runs at approx. 8MHz.

**串列埠 (Serial Port)** - a low speed interface typically used for mouse and external modems.

**並列埠 (Parallel Port)** - a low speed interface typically used for printers.

**PS/2** - a low speed interface used for mouse and keyboards.

**USB - Universal Serial Bus** - a medium speed interface typically used for mouse, keyboards, scanners, and some digital cameras.

**音效裝置 (Sound)** - the interface between the sound card or integrated sound connectors and speakers, mic, game controllers, and MIDI sound devices.

**區域性網路 (LAN) - Local Area Network** - the interface to your local area network.

**基本輸出/輸入系統 (BIOS ; Basic Input/Output System)** - the program logic used to boot up a computer and establish the relationship between the various components.

**驅動程式(Driver)** - software, which defines the characteristics of a device for use by another device or other software.

**中央處理器(P processor)** - the "central processing unit" (CPU); the principal integrated circuit used for doing the "computing" in "personal computer"

**前端匯流排頻率 (Front Side Bus Frequency)**

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The working frequency of the motherboard, which is generated by the clock generator for CPU, DRAM and PCI BUS.

### CPU L2 快取記憶體 (CPU L2 Cache)

The flash memory inside the CPU, normal Athlon CPU has 256K or above, while Duron CPU has 64K。

## 2-3-2 關於 AMD Athlon & Duron 462-腳位 CPU

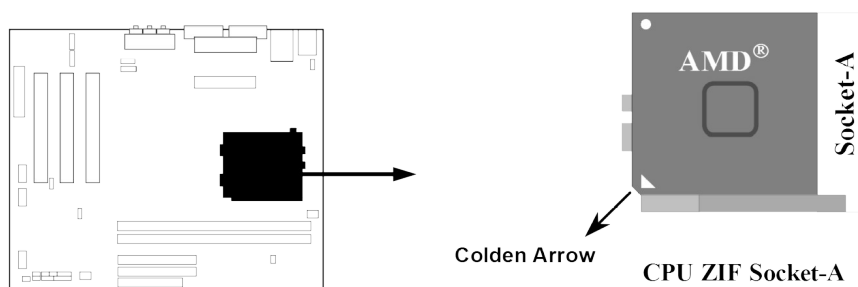
此主機板可支援 Socket-A (Socket-462) AMD Athlon/Duron 處理器。

此主機板提供了一個 ZIP Socket-A 的插座。安裝在主機板上的 CPU 必須裝有風扇以防止 CPU 過熱。如果你尚未購買風扇，請在安裝系統前請購買一個合適的風扇。

**警告！** 請確保處理器之散熱片的表面有充足的空氣流通，且CPU冷卻風扇工作正常。否則將使處理器和主機板因過熱而造成損壞。如果需要的話，你可以另外安裝輔助風扇。

**警告!** 此主機板提供有最新的 CPU 保護功能，因此你必須將 CPU 風扇的接頭連接至 CPUFAN 的位置方可獲得此項功能。如果你沒有將風扇接頭連接至 CPUFAN 的位置 (或者你將接頭連接在 SYSFAN 的位置)，系統會因為偵測不到風扇，進而將電源關掉以保護你的CPU。

安裝 CPU 前，先請關閉你的系統再移除外殼。找到 ZIF 插槽並先從插槽一側拉起拉桿使之向上成90度。將CPU從如下圖所示的正確方位插入。有凹口的一角應該朝向拉桿的末端。因為CPU四個角中有兩角缺了一個引腳，因此會適合於如圖所示的方位。



當你將CPU插入ZIF插槽時，不要使用太大的力量，插入後只要輕輕把拉桿沿正確方向按下即可。

## 2-3-3 超頻

**警告！** 本部分內容僅供有經驗的主機板安裝者參考。超頻將導致系統喪失穩定性，甚至將縮短處理器的使用壽命。

調整過 S1 的跳帽後，你可以在 BIOS CMOS SETUP UTILITY 選擇超頻。進入 CMOS SETUP UTILITY 之後再選擇 “Miscellaneous Control” 則你將看到如下所

示的螢幕。當你經由軟體設定 CPU 的外頻時，可在 100MHz 到 166MHz 之間以每次遞增 1MHz 的方式達到超頻的目的。

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

Miscellaneous Control

Auto Detect DIMM/PCI Clk	Enabled	Item Help
Spread Spectrum	Disabled	
Clock Control	By Software	Menu Level >
** Current Host Clock is 100 MHz **		
HOST clock at next boot is 100 Mhz		
** Current DRAM Clock is 100 MHz **		
DRAM clock at next boot is 100 Mhz (HOST CLK)		
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### Clock Control

此項功能可讓你選擇使用硬體 (Jumper S1) 或軟體 (BIOS) 設定 CPU 的時脈。

### Host clock at next boot is

當時脈是經由軟體控制時，你即可在可在100MHz 到166MHz 之間以每次遞增1MHz的方式達到超頻的目的。

### DRAM clock at next boot is

此項設定可以讓你選擇 SDRAM 時脈和 CPU 時脈是以同步或非同步方式執行。

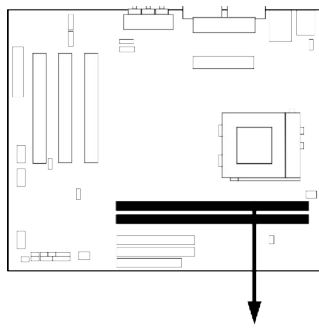
## 2-4 安裝記憶體

此主機板提供有二個168-針 Dual Inline Memory Module (DIMM) 插槽，可使記憶體從最小的 16MB 擴充至最大的 1.0GB 記憶體。

### 有效記憶體配置

Bank	168-Pin DIMM		Total Memory
Bank 0, 1 (DIMM1)	SDRAM 32, 64, 128, 256, 512MB	X 1	16MB~512MB
Bank 2, 3 (DIMM2)	SDRAM 32, 64, 128, 256, 512MB	X 1	16MB~512MB
Total	System Memory (Max. 1GB)		16MB~1GB

一般說來，將記憶體安裝到主機板上是非常容易的，你可以參考圖 2-4 安裝記憶體的簡圖。



DIMM1 (BANK0+ BANK1)
DIMM2 (BANK2+ BANK3)

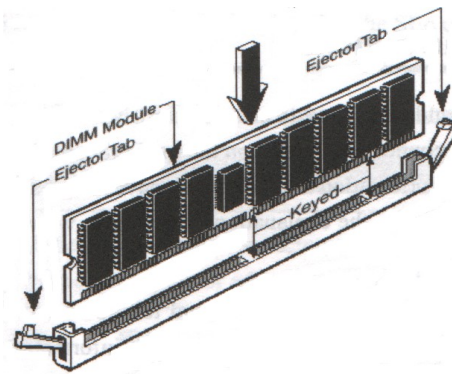


Figure 2-4

**注意！** 當你將DIMM記憶體完全插入DIMM插槽時，請將兩端的白色護耳緊緊地卡好，使其恰好卡住兩端的凹口。

**警告！** 如果SDRAM頻率設為133MHz時，祇能使用PC133-相容的DIMM。當此主機板設成133MHz時，如果您的DIMM不是PC133-相容的話，會由於嚴格的同步問題，導致系統無法啟動。如有這種現象，請將頻率設為100MHz以確保系統的穩定性。

## 2-5 擴充卡

**警告！** 當添加、移除擴充卡，或其他系統組件時務必請關掉電源，以避免對主機板和擴充卡造成損害。

### 2-5-1 擴充卡安裝程序

1. 仔細閱讀擴充卡所附之文件，將所有相關之必要的軟、硬體設定好，比如跳線。
2. 移除電腦外殼，並將你想要安裝之插槽處的金屬支架拆除。
3. 將該擴充卡插入並穩固地壓下去。
4. 鎖上螺絲。
5. 將系統機殼放回原位。
6. 如果有必要，請在 BIOS內設定其參數。
7. 安裝擴充卡所須的相關驅動程式。

### 2-5-2 設定擴充卡的 IRQ

某些擴充卡需要指定 IRQ 方可使用。一般來說，每一個 IRQ 的埠口位址祇能單獨地指定給某一個裝置使用。在標準設計中，有16個IRQ是可用的，但其中的大部分都已被系統使用中。

## IRQ 的基本中斷分配表

IRQ	Priority	Standard function
0	1	System Timer
1	2	Keyboard Controller
2	N/A	Programmable Interrupt
3 *	11	Communications Port (COM2)
4 *	12	Communications Port (COM1)
5 *	13	Sound Card (sometimes LPT2)
6	14	Floppy Disk Controller
7 *	15	Printer Port (LPT1)
8	3	System CMOS/Real Time Clock
9 *	4	ACPI Mode when enabled
10 *	5	IRQ Holder for PCI Steering
11 *	6	IRQ Holder for PCI Steering
12 *	7	PS/2 Compatible Mouse Port
13	8	Numeric Data Processor
14 *	9	Primary IDE Channel
15 *	10	Secondary IDE Channel

\*上述的 IRQ 通常可供 ISA 或 PCI 介面裝置使用。

### 2-5-3 主機板的中斷列表

主機板共用的中斷指令如下表所示：

	INT A	INT B	INT C	INT D
PCI slot 1	—	Shared	—	—
PCI slot 2	—	—	Shared	—
PCI slot 3	—	—	—	Shared
Onboard VGA	—	—	—	—
AC97/MC97	—	Shared	—	—
Onboard USB	—	—	—	Shared
Onboard USB 2	—	—	—	Shared

**注意事項！** 如果你在共用的插槽上使用PCI卡，請確認驅動程式可支援“Shared IRQ”或者該卡不需要分配任何IRQ。否則兩個PCI組之間將產生衝突，進而使得整個系統不穩定而且PCI卡將不可使用。

## 2-6 連接埠，接頭

### 2-6-1 連接埠 (Connectors)

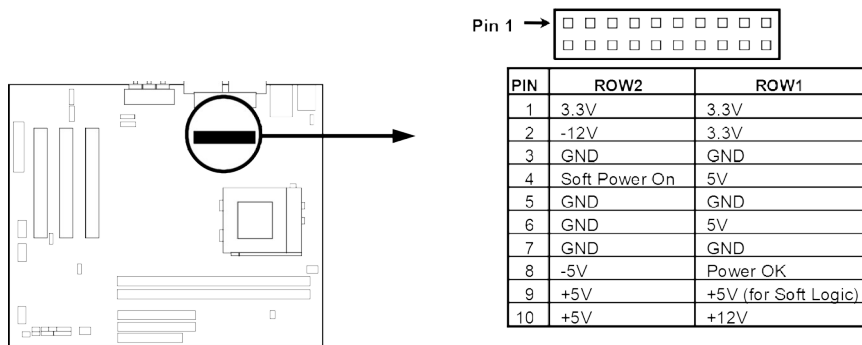


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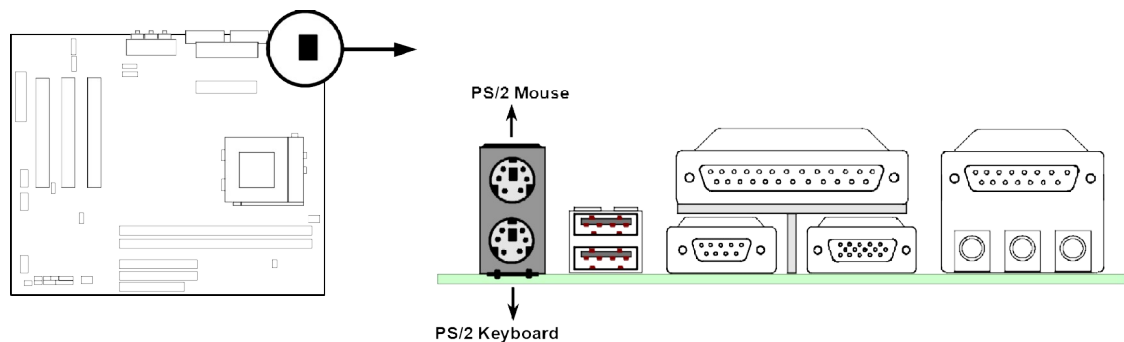
(1) 電源介面 (20-pin block) : ATX\_PW

此為 ATX 電源供應器的介面，其 20-pin 的定義如下表。ATX 電源供應器電源經由個人電腦面板上一個 2-pin 的開關控制。



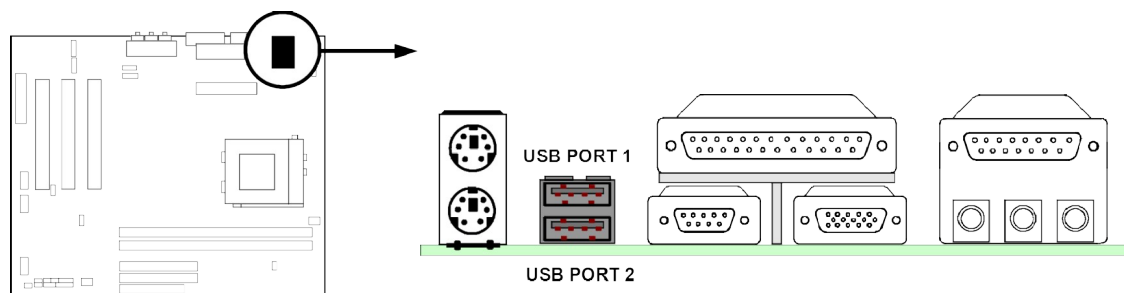
(2) PS/2 滑鼠及 PS/2 鍵盤介面 : KBMS

PS/2 滑鼠介面可連接 PS/2 滑鼠，同樣地，PS/2 鍵盤介面也用於連接 PS/2 鍵盤，當您的配備不是 PS/2 規格，則需經由轉接器式轉接排線，接到主機板。



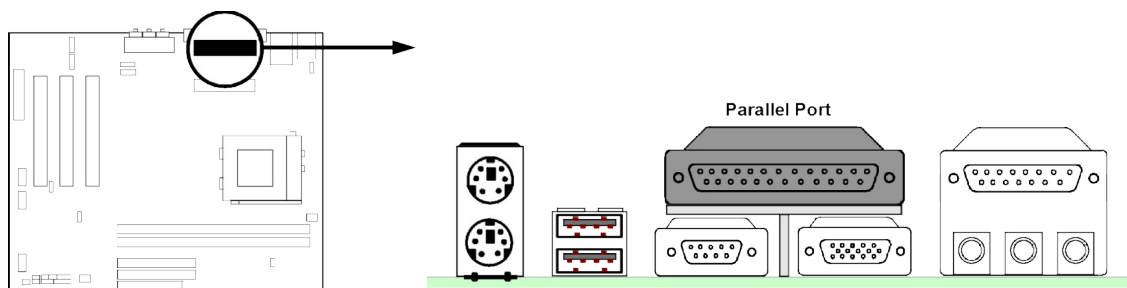
(3) USB 埠介面 : USB

該 USB 埠可讓兩個 USB 裝置連接到主機板。



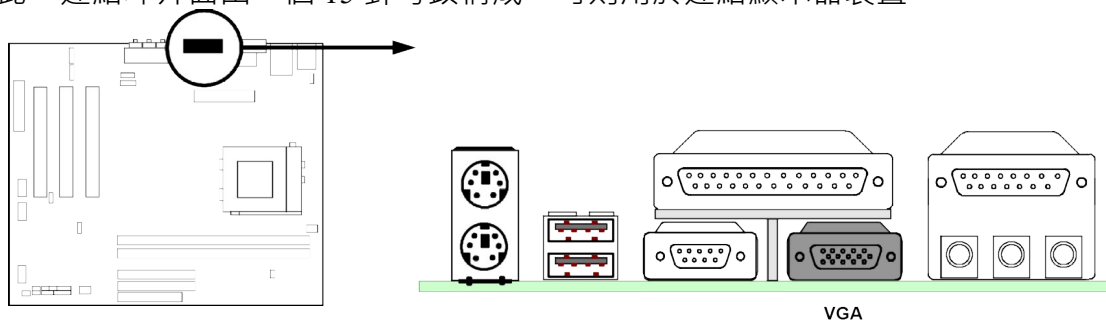
(4) 並列埠介面 (25-pin female) : PRINT

該並列埠介面為一個25針母頭構成，可於BIOS設定中 disable 該並列埠。詳細資料請參閱第三章的“INTEGRATED PERIPHERALS SETUP”。



### (5) VGA 介面 (15-pin female) : VGA

此一連結埠介面由一個 15 針母頭構成，可則用於連結顯示器裝置。



### (6) 音效及遊戲介面 : AUD\_GAME

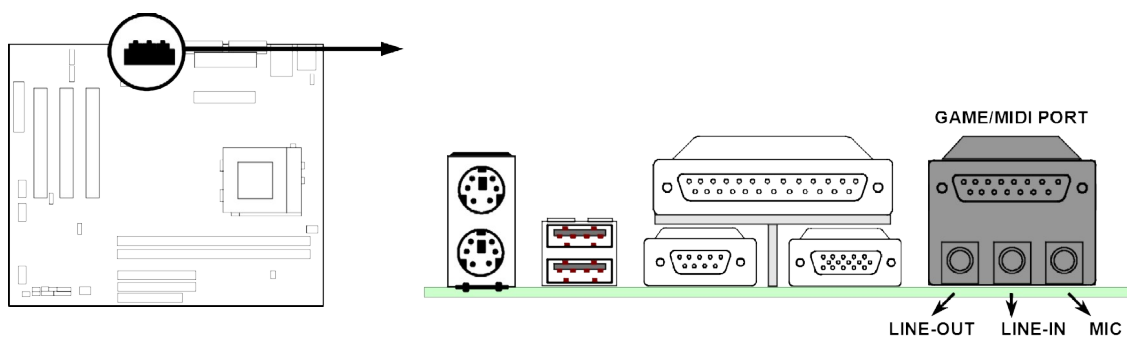
音效介面有輸出、輸入、麥克風三個介面。

輸出： 音效輸出至喇叭

輸入： 音效輸入至音效晶片

麥克風： 由麥克風輸入

遊戲介面：是一個15-pin 的D型母頭，可連接搖桿或 MIDI 裝置

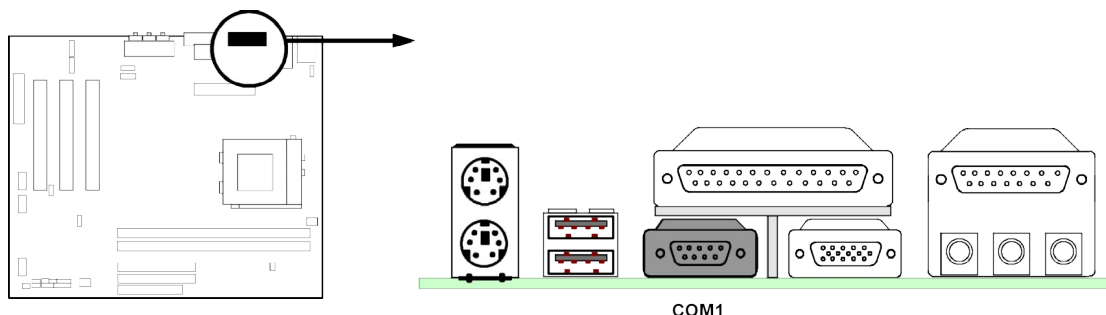


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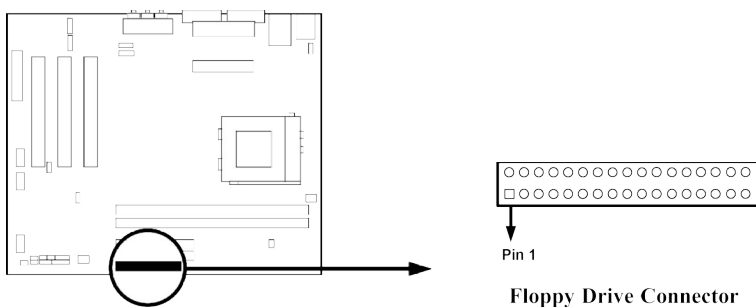
(7) 串列埠介面：COM1

COM1 是一個 9-pin D型公頭，該串列埠可經由 BIOS 設定為 disable 或 enable。詳細資料請參閱第三章的“INTEGRATED PERIPHERALS SETUP”。



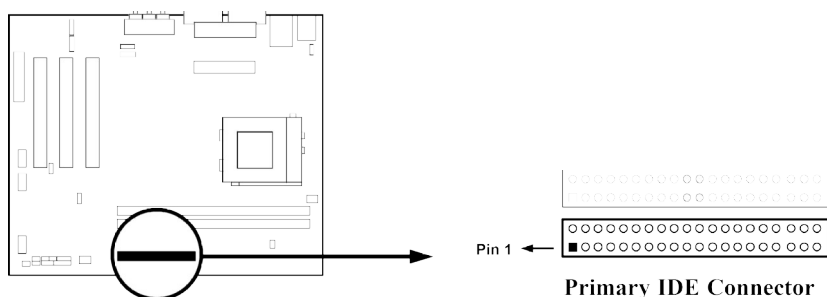
(8) 軟碟介面 (34-pin block)：FDD

該介面經由一條 34-pin 排線與軟碟連接。一般來說，排線有紅邊的方向與 Pin 1 相應，所以在裝置排線時應將紅邊對應軟碟介面的 Pin 1 方向。



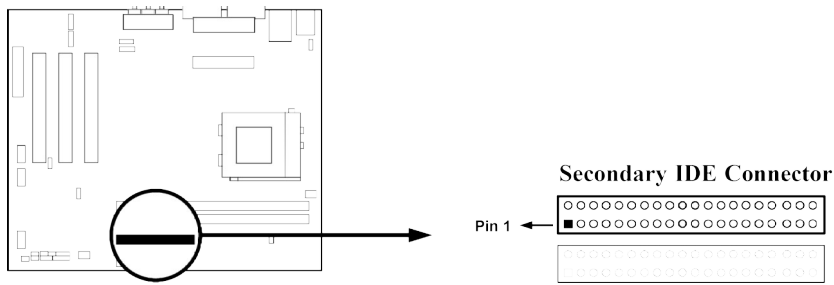
(9) 第一個 IDE 介面 (40-pin block)：IDE1

該介面經由一條 40-pin 排線與硬碟連接，同樣地，也是紅邊對介面 Pin 1，可以讓你連接兩個硬碟。



(10) Secondary IDE Connector (40-pin block): IDE2

該介面為另一個 IDE 裝置介面，同樣可經由排線連接兩個 IDE 裝置。

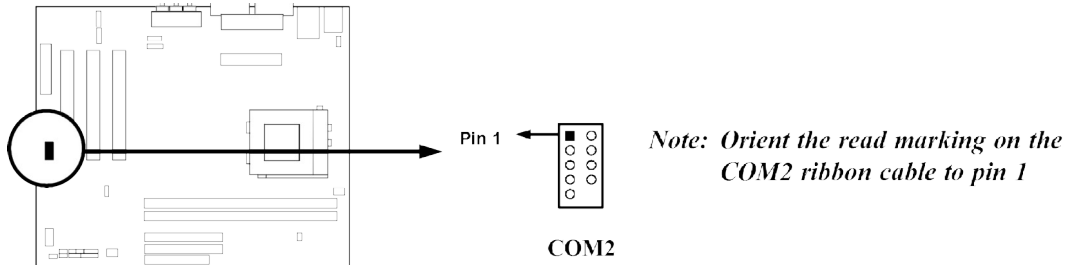


- 每個連接埠能連接兩個硬碟。第一個 HDD 相當於 “Master”，第二個 HDD 相當於 “Slave”。
- 為了性能的考慮，我們強烈建議請不要將 CD-ROM 或 DVD-ROM 驅動器與硬碟安裝在同一個 IDE 通道上。否則，此通道上的系統性能將會降低。

## 2-6-2 接頭 (Headers)

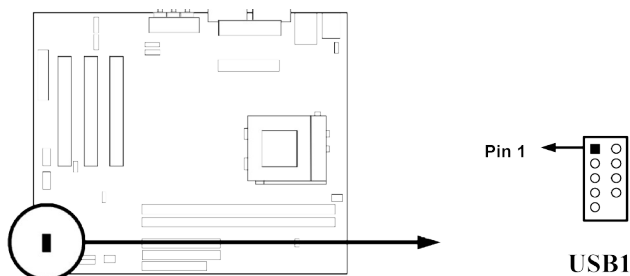
### (1) COM2 通信埠接頭 (9-pin block) : COM2

通信埠接頭是此一主機板的另一個串列埠介面，使用者可經由連接隨機附送的串列埠排線，成為第二個串列埠。



### (2) USB 擴充埠介面 (9-pin block) : USB1

此接頭是用來連接附加的 USB 介面插頭。透過外加一條可選購的 USB 排線，即可使用附於面板上的兩個額外 USB 插頭。



### (3) IDE 運轉指示燈 : IDE LED

將硬碟運轉指示燈連接到電腦機殼的接頭。

#### (4) Turbo LED 開關 : TURBO LED

主機板加速開關的預設值為"開啟" 狀態。當系統電源開啟時，加速燈會一直亮著。你也可以將電腦機殼的電源 LED 連接到這裡，表示電源開或關的顯示。

#### (5) Reset 開關 : RESET

這個 2-pin 接頭可連接電腦機殼上「reset」的電源線，以達到不關閉系統電源的情況下重啟電腦的目的。

#### (6) 喇叭連線開關 : SPKR

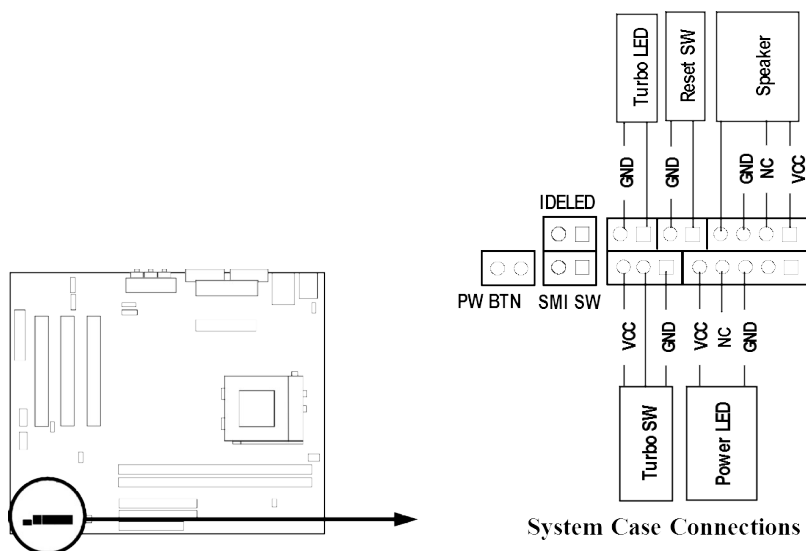
這個 4-pin 接頭可連接電腦機殼上「speaker」的開關，以供機殼上的喇叭使用。

#### (7) 電源 LED 開關 : POWER LED

你可將電腦機殼上的 Power LED 線連到此一開關，當系統電源開啟時，Power LED 的燈就會亮起來。

#### (8) 電源開關 : PW BTN

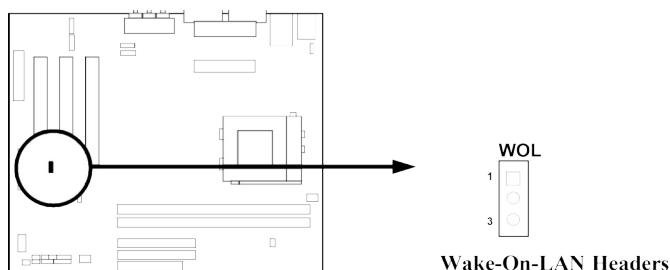
這個 2-pin 接頭可連接電腦機殼上的電源開關，供電腦啟動或關閉使用。



#### (9) 遠程網路啟動介面 (3-pin) : WOL

將具有WAKE ON LAN輸出規格的網路卡與該介面連接後，當網路卡收到啟動訊號時即可啟動系統，達到遠端程式控制目的。

**注意：** 使用此一功能前，請確定 BIOS 中的 Wake On LAN 或 Ring In Wake up 有設定成 enabled 狀態。

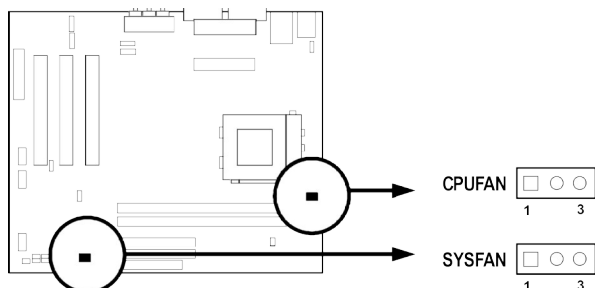


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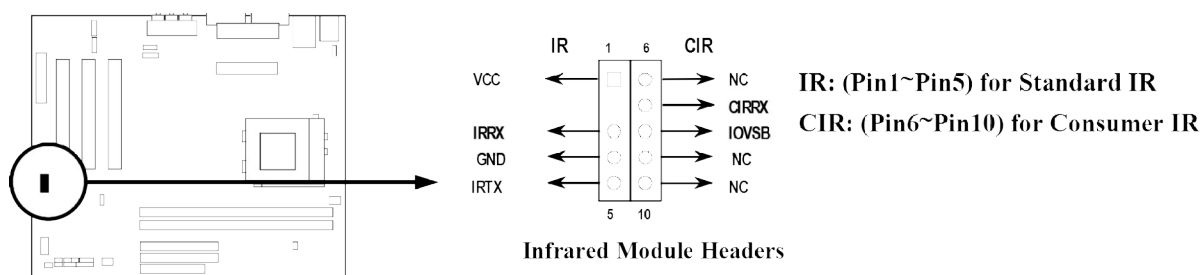
**(10) 風扇電源接頭 (3-pin): CPUFAN, SYSFAN**

這些介面支援 350mA (4.2 瓦)或以下的冷卻風扇，根據風扇生產廠商的不同，電線和插座也會不同。紅線應當是陽極，而黑線則是接地。將風扇接頭插到主機板時，應考慮連接頭的極性。



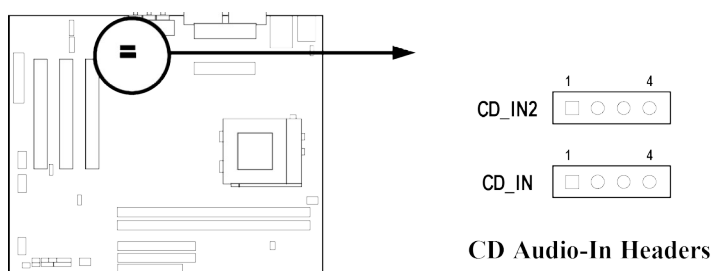
**(11) IR 紅外線介面 (9-pin) : IR**

該介面支援可選購的紅外線無線傳輸以及接收組件。必須在 BIOS setup 中設定其參數以使用 IR 或 CIR 的功能。

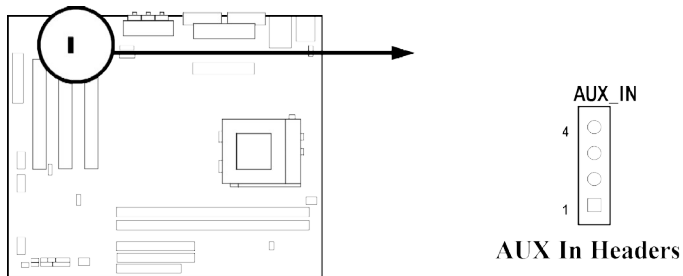


**(12) CD 音效輸入介面 (4-pin) : CD\_IN, CD\_IN2**

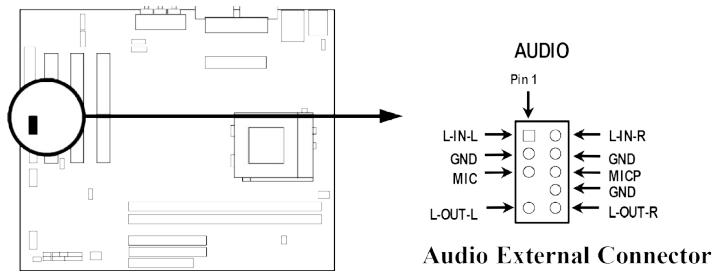
CD-IN 和 CD-IN 為音效輸入訊號介面，可與 CD-ROM 音效輸出連接。



**(13) AUX 輸入介面 (4-pin) : AUX\_IN**



#### (14) 音效介面 (9-pin) : AUDIO



## 2-7 啟動你的電腦

1. 所有排線都接好之後，蓋上機殼。
2. 請確認所有的開關都是關閉的，然後檢查電源的輸出電壓是否設為正確位置，通常情況下輸入電壓為220V~240V或 110V~120V，這取決於你所處位置的使用電壓。
3. 依照你系統的使用手冊，將電源線連接到位於機殼後部的電源接頭上。
4. 依照下列順序將週邊設備依次打開：
  - a. 顯示器。
  - b. 其他週邊設備 (印表機，掃描器，外接式數據機等等...)
  - c. 系統電源。在 ATX 電源，你必須先打開電源供應器後方電源開關，然後按下位於機殼前面的 ATX 電源開關。
5. 位於機殼前面的電源LED將會點亮。顯示器的LED會亮起，如果系統符合綠色環保省電要求，或具有電源待機特性。當系統啟動後在桔紅色與綠色之間切換，接著系統將執行自我檢測。自我檢測執行時，BIOS將發出嘟嘟聲，同時將相關提示資訊顯示在螢幕上。

如果從開啟電源起的30秒內沒看到任何動靜，系統則可能已經自我檢測失敗。請再次檢查你的跳線設定以及連接設定或是打電話向你的零售商尋求協助。

自我檢測響鈴	意義
顯示 logo 後一短響	系統啟動正常
不停地響	未安裝或未檢測到 DRAM

一聲長響後三聲短響	未找到顯示卡或顯示用快取記憶體損壞
系統工作時發出高頻率響聲	CPU 過熱 系統處於低頻工作環境

6. 在電腦啟動其間，如果需要更改 BIOS 設定之任何參數，只要按下<Delete>鍵即可進入BIOS setup，再依照 BIOS SETUP 的線上指示完成相關設定。
7. 關閉你的電腦：在關閉電源開關之前，你必須先關閉你的操作系統。如果你是用 ATX 的電源供應器，在退出或關閉操作系統後可以按下電源開關。如果你使用的操作系統是 Windows 9X 版本，按下“開始”按鈕，再按“關機”，然後按“關閉這台電腦 (S)”，Windows 在關閉相關應用程式後，會自動關掉電源。

## 第三章

### BIOS 介紹

BIOS 是一段儲存在快讀寫式記憶體 (FLASH ROM) 之基本輸出、入控制程式。該程式是主機板與操作系統間的一架橋樑。電腦啟動時，會先由 BIOS 程式進行控制。首先執行一個稱為 POST (開機自我檢測) 的自我測試，它會偵測所有硬體設備，並確認同步硬體參數。當完成所有檢測時，它才將系統的控制權移交給操作系統 (OS)。由於 BIOS 是硬體與軟體聯繫的唯一通道，所以是系統穩定性的關鍵因素，進而確保系統性能可達到最佳狀態。

如圖 3-1 所示，在 BIOS 設定程式主目錄中，可看到一些選項。我們將在本章的後面逐步解釋這些選項，首先讓我們先看看你將在此用到之功能鍵的簡單描述：

- 按<Esc> 鍵，可退出 BIOS 設定程式。
- 按 ↑↓←→ (向上，向下，向左，向右) 鍵，可在主目錄中選擇你想確認或修改的選項。
- 當你想要對選項進行參數設定時請按 Page Up/Page Down 或 +/- 鍵。
- 當完成對參數的設定後，請按<F10> 鍵，儲存修改的參數並退出 BIOS 設定程式，同時電腦也會自動重新開機。

#### 3-1 進入 Setup



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在啟動電源開關並且按住<Del>就可以馬上進入Setup 程式。如果你來不及在POST過程中按下<Del>鍵順利進入CMOS SETUP，那麼可以透過把電源關掉，然後再打開電源開關，或者是直接按下電腦機殼上的“RESET”按鈕重啟動系統，還是同時按下<Ctrl>，<Alt> 和<Delete> 鍵來以重新啟動電腦，並再按 Del 鍵試一次。如果沒能在正確時間內按下以上所有的鍵，或者系統重新啟動失敗，此時在螢幕上會顯示錯誤訊息如下：

**Press <F1> to continue, <Ctrl-Alt-Esc> or <Del> to enter Setup**

你可按 <F1> 鍵繼續，或按 <Ctrl-Alt-Esc> 組合鍵重新啟動電腦，還是按<Del> 鍵，進入 BIOS 設定程式。

## 3-2 線上說明

### 主目錄

所選取之設定功能的說明，會以反白方式顯示在螢幕底部。

### 狀態頁安裝目錄/選項頁安裝目錄

按 F1 鍵，則會彈出一個線上說明的小視窗，該視窗描述了該選項中可用之指令以及可能的選擇。再按<Esc>鍵，則可退出該線上說明視窗。

## 3-3 主目錄

一旦你進入Award BIOS CMOS Setup，主目錄（圖3-1）會顯示在螢幕中。你可以從14項設定功能選項和兩項退出選項中加以選擇。請使用方向鍵在各選項之間進行選擇，再按<Enter>鍵接受或是進入子目錄。

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<b>Standard CMOS Features</b>	<b>Miscellaneous Control</b>
<b>Advanced BIOS Features</b>	<b>Load optimized Defaults</b>
<b>Advanced Chipset Features</b>	<b>Load Standard Defaults</b>
<b>Integrated Peripherals</b>	<b>Set Supervisor Password</b>
<b>Power Management Setup</b>	<b>Set User Password</b>
<b>PnP/PCI Configurations</b>	<b>Save &amp; Exit Setup</b>

PC Health Status	Exit Without Saving
Esc : Quit	↑ ↓ → ← : Select Item
F10 : Save & Exit Setup	
Time, Date, Hard Disk Type...	

Figure 3-1

### Standard CMOS Features

CMOS 的標準設定。

### Advanced BIOS Features

BIOS 特性的進階設定。

### Advanced Chipset Features

晶片組參數的進階設定，透過更改其設定之參數，可提高系統性能。

### Integrated Peripherals

周邊配備設定。

### Power Management Setup

電源管理的設定。

### PnP/PCI configurations

PnP (即插即用) 與 PCI 匯流排的組態設定。

### PC Health Status

該項目顯示系統狀態，如 CPU 溫度、風扇轉速等等。

### Miscellaneous Control

設定頻率/電壓控制。

### Load Optimized Defaults

載入最佳化設定。

### Load Standard Defaults

載入原廠的預設值。

### Set Supervisor/User Password

設定監督者/使用者密碼。

### Save & Exit Setup

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儲存 CMOS 的設定，然後退出 Setup 程式。

### Exit Without Saving

放棄 CMOS 所有的修改，然後退出 Setup 程式。

## 3-4 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into several categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software		
Standard CMOS Features		
Date (mm:dd:yy)	Thu, Feb, 22 2001	Item Help
Time (hh:mm:ss)	17 : 47 : 30	
> IDE Primary Master	Press Enter None	Menu Level >
> IDE Primary Slave	Press Enter None	
> IDE Secondary Master	Press Enter None	Change the day, month, year and century
> IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.25 in.	
Drive B	None	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	56320K	
Total Memory	57344K	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### Date

The date format is <day><month><date><year>.

**Day** Day of the week, from Sun to Sat, determined by BIOS. Read-only.

**Month** The month from Jan. through Dec.

**Date** The date from 1 to 31 can be keyed by numeric function keys.

**Year** The year depends on the year of the BIOS.

### Time

The time format is <hour><minute><second>.

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### Primary Master/Primary Slave

### Secondary Master/Secondary Slave

Press PgUp/<+> or PgDn/<-> to select Manual, None, Auto type. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category. If your hard disk drive type is not matched or listed, you can use Manual to define your own drive type manually.

If you select Manual, related information is asked to be entered to the following items. Enter the information directly from the keyboard. This information should be provided in the documentation from your hard disk vendor or the system manufacturer.

If the controller of HDD interface is SCSI, the selection shall be "None".

If the controller of HDD interface is CD-ROM, the selection shall be "None"

**Access Mode** The settings are Auto Normal, Large, and LBA.

**Cylinder** number of cylinders

**Head** number of heads

**Precomp** write precomp

**Landing Zone** landing zone

**Sector** number of sectors

## 3-5 Advanced BIOS Features

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
Advanced BIOS Features

		Item Help
Anti-Virus Protection	Disabled	
PhoenixNet Support	Disabled	
CPU L1 Cache	Enabled	
CPU L2 Cache	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot Device	CDROM	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Normal	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM > 64MB	Non-OS2	
HDD S.M.A.R.T. Capability	Disabled	
Report No FDD For Windows	No	
Video BIOS Shadow	Enabled	
Menu Level >		
Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep Enabled copies Video BIOS to shadow RAM Improves performance		
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD=Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### Anti-Virus Protection

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Allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.

**Disabled** (default) No warning message to appear when anything attempts to access the boot sector or hard disk partition table.

**Enabled** Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector of hard disk partition table.

### **CPU L1 Cache**

The default value is Enabled.

**Enabled** (default) Enable cache

**Disabled** Disable cache

*Note: The internal cache is built in the processor.*

### **CPU L2 Cache**

Choose Enabled or Disabled. This option enables the Level 2 cache memory.

### **Quick Power On Self-Test**

This category speeds up Power On Self Test (POST) after you power on the computer. If this is set to Enabled. BIOS will shorten or skip some check items during POST.

**Enabled** (default) Enable quick POST

**Disabled** Normal POST

### **First/Second/Third/ Boot Device, Boot Other Device**

The BIOS attempts to load the operating system from the devices in the sequence selected in these items. The settings are Floppy, LS/ZIP, HDD-0/HDD-1/HDD-3, SCSI, CDROM, LAN and Disabled.

### **Swap Floppy Drive**

Switches the floppy disk drives between being designated as A and B. Default is Disabled.

### **Boot Up Floppy Seek**

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80 tracks. 360K type is 40 tracks while 760K, 1.2M and 1.44M are all 80 tracks.

### **Boot Up NumLock Status**

The default value is On.

**On** (default) Keypad is numeric keys.

**Off** Keypad is arrow keys.

### **Gate A20 Option**

**Normal** The A20 signal is controlled by keyboard controller or chipset hardware.

**Fast** (default) The A20 signal is controlled by port 92 or chipset specific method.

### **Typematic Rate Setting**

Keystrokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected. The settings are: Enabled/Disabled.

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### Typematic Rate (Chars/Sec)

Sets the number of times a second to repeat a keystroke when you hold the key down. The settings are: 6, 8, 10, 12, 15, 20, 24, and 30.

### Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke. The settings are 250, 500, 750, and 1000.

### Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

**System** The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.

**Setup (default)** The system will boot, but access to Setup will be denied if the correct password is not entered prompt.

### OS Select For DRAM > 64MB

Allows OS2<sup>®</sup> to be used with >64MB of DRAM. Settings are Non-OS/2 (default) and OS2. Set to OS/2 if using more than 64MB and running OS/2<sup>®</sup>.

### Report No FDD For Win 95

Whether report no FDD for Win 95 or not. The settings are: Yes, No.

## 3-6 Advanced Chipset Features

The Advanced Chipset Features Setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
Advanced Chipset Features

DRAM Timing Settings	Press Enter	Item Help
AGP Aperture Size	64MB	
PCI GRANT Parking on	PMR	
Memory Parity Check	Disabled	Menu Level >
System BIOS Cacheable	Disabled	
Video RAM Cacheable	Disabled	
Memory Hole at 15M-16M	Disabled	
System Share Memory Size	8MB	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### DRAM Timing Settings

Please refer to section 3-6-1

### AGP Aperture Size

This option determines the effective size of the graphics aperture used in the particular PAC configuration. The AGP aperture is memory-mapped, while graphics data structure can reside in a graphics aperture. The aperture range should be programmed as not cacheable in the processor cache, accesses with the aperture range are forwarded to the main memory, then PAC will translate the original issued address via a translation table that is maintained on the main memory. The option allows the selection of an aperture size of 32MB, 64MB.

### PCI GRANT Parking On

The settings are: PMR, PCI Master.

### Memory Parity Check

This function provides parity check of memory.

The choice is either Disabled or Enabled.

### System BIOS Cacheable

Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result. The settings are: Enabled and Disabled.

### Video RAM Cacheable

Select Enabled allows caching of the video BIOS, resulting in better system performance. However, if any program writes to this memory area, a system error may result. The settings are: Enabled and Disabled.

### Memory Hole at 15M-16M

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements. The settings are: Enabled and Disabled.

## 3-6-1 DRAM Timing Setting

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### DRAM Timing Setting

Auto Configuration	Manual	Item Help
RAS Active Time	6T	
RAS Precharg Time	3T	
RAS to CAS Delay	3T	
Early CKE Delay Adjustment	Auto	Menu Level >>
Early CKE Delay 1T Control	Normal	
Write Recovery Time	2T	
Background Command Lead-off Time	Delay 1T	
Read/Write Cycles Lead-off Time	Delay 1T	
CAS Latency	Auto	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		

F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

### RAS Active Time

Select the number of SCLKs for an access cycle. The settings are: Auto (Default), 6T, 7T, 5T, 4T.

### RAS Precharge Time

If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete and the DRAM may fail to retain data. *Fast* gives faster performance; and *Slow* gives more stable performance. This field applies only when synchronous DRAM is installed in the system. The settings are: Auto (default), 4T, 2T and 3T.

### RAS to CAS Delay

This field let's you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. *Fast* gives faster performance; and *Slow* gives more stable performance. This field applies only when synchronous DRAM is installed in the system. The settings are: 2 and 3.

### CAS Latency

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. The settings are: Auto (Default) 2T and 3T.

## 3-7 Integrated Peripherals

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

### Integrated Peripherals

> OnChip IDE Function	Press Enter	Item Help
> OnChip Device Function	Press Enter	
> Onboard SuperIO Function	Press Enter	
Init Display First	PCI Slot	Menu Level >
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### OnChip IDE Function

Please refer to section 3-7-1

### OnChip Device Function

Please refer to section 3-7-2

### Onboard SuperIO Function

Please refer to section 3-7-3



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## Init Display First

This item allows you to decide to activate whether PCI Slot or AGP VGA first. The settings are: PCI Slot, AGP Slot.

## 3-7-1 OnChip IDE Function

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
OnChip IDE Function

Internal PCI/IDE	Both	Item Help
Primary Master PIO	Auto	Menu Level >>
Primary Slave PIO	Auto	
Secondary Master PIO	Auto	
Secondary Slave PIO	Auto	
Primary Master UDMA	Auto	
Primary Slave UDMA	Auto	
Secondary Master UDMA	Auto	
Secondary Slave UDMA	Auto	
IDE Burst Mode	Enabled	
IDE HDD Block Mode	Enabled	
IDE Prefetch Mode	Enabled	
Delay For HDD (Secs)	0	

↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

### Internal PCI/IDE

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Both to activate each channel separately. The settings are: Both, IDE0, IDE1.

### Primary/Secondary Master/Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device. The settings are: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

### Primary/Secondary Master/Slave UDMA

Ultra DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33 and Ultra DMA/66, select Auto to enable BIOS support. The settings are: Auto, Disabled.

### IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support. The settings are: Enabled, Disabled.

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### 3-7-2 OnChip Device Function

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
OnChip Device Function

AC97 Sound Device	Enabled	Item Help
Game Port Address	201	
Midi Port Address	330	Menu Level >>
Midi Port IRQ	10	
AC97 Modem Device	Enabled	
USB Controller	Enabled	
USB Keyboard Legacy Support	Disabled	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

#### AC97 Sound Device

This item allows you to decide to enable/disable the chipset family to support AC97 Audio. The settings are: Enabled, Disabled.

#### Game Port Address/Midi Port Address

This will determine which Address the Game Port/Midi Port will use.

#### AC97 Modem Device

This item allows you to decide to enable/disable the chipset family to support AC97 Modem. The settings are: Auto, Disabled.

#### USB Controller

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have a USB peripherals. The settings are: Enabled, Disabled.

#### USB Keyboard Legacy Support

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard. The settings are: Enabled, Disabled.

### 3-7-3 Onboard SuperIO Function

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Onboard SuperIO Function

Onboard FDD Controller	Enabled	Item Help
Onboard Serial Port 1	3F8/IRQ4	

Onboard Serial Port 2	2F8/IRQ3	Menu Level >>
UART2 Mode	Normal	
RxD,TxD Active	Hi, Lo	
IR Transmission Delay	Enabled	
IR Duplex Mode	Half	
Use IR Pins	IRRX/IRTX	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
EPP Mode Select	EPP1.9	
ECP Mode Use DMA	3	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### Onboard FDD Controller

Select Enabled if your system has a floppy disk controller (FDD) installed on the system board and you wish to use it. If you install add-on FDC or the system has no floppy drive, select Disabled in this field. The settings are: Enabled and Disabled.

### Onboard Serial Port 1/Port 2

Select an address and corresponding interrupt for the first and the second serial ports. The settings are: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto.

### UART 2 Mode

This item allows you to determine which InfraRed(IR) function of the onboard I/O chip, this functions uses.

### Onboard Parallel Port

There is a built-in parallel port on the on-board Super I/O chipset that Provides Standard, ECP, and EPP features. It has the following option:

#### Disabled

(3BCH/IRQ7)/ Line Printer port 0

(278H/IRQ5)/ Line Printer port 2

(378H/IRQ7) Line Printer port 1

### Parallel Port Mode

SPP : Standard Parallel Port

EPP : Enhanced Parallel Port

ECP : Extended Capability Port

#### SPP/EPP/ECP/ECP+EPP

To operate the onboard parallel port as Standard Parallel Port only, choose "SPP." To operate the onboard parallel port in the EPP modes simultaneously, choose "EPP." By choosing "ECP", the onboard parallel port will operate in ECP mode only. Choosing "ECP+EPP" will allow the onboard parallel port to support both the ECP and EPP modes simultaneously. The ECP mode has to use the DMA channel, so choose the onboard parallel port with the ECP feature. After selecting it, the following message will appear: "ECP Mode Use DMA" at this time, the user can choose between DMA channels 3 to 1. The onboard parallel port is EPP Spec. compliant, so after the user chooses the onboard parallel port with the EPP function, the following message will be displayed on the screen: "EPP Mode Select." At this time either EPP 1.7 spec. or EPP 1.9 spec. can be chosen.

## 3-8 Power Management Setup

The Power Management Setup allows you to configure your system to most effectively save energy saving while operating in a manner consistent with your own style of computer use.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

### Power Management Setup

ACPI function	Enabled	Item Help
Video Off Option	Always off	
Video Off Method	V/H SYNC+Blank	
MODEM Use IRQ	3	Menu Level >
Hot key Function As	Power Off	
Power Button Function	Instant Off	
> PM Wake Up Events	Press Enter	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

#### ACPI Function

This item allows you to Enabled/Disabled the Advanced Configuration and Power Management (ACPI). The settings are Enabled and Disabled.

#### Video Off Option

This determines the manner in which the monitor is blanked. The choice are Suspend → off, All Modes → Off, and Always On.

#### Video Off Method

This determines the manner in which the monitor is blanked.

- DPMS (default)** Initial display power management signaling.
- Blank Screen** This option only writes blanks to the video buffer.
- V/H SYNC+Blank** This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

#### Modem Use IRQ

This determines the IRQ in which the MODEM can use.

The settings are: 3, 4, 5, 7, 9, 10, 11, NA.

#### Power Button Function

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state. The settings are: Delay 4 Sec, Instant-Off.

#### PM Wake Up Events

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Please refer to section 3-8-1

### 3-8-1 PM Wake Up Events

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

#### PM Wake Up Events

IRQ [3-7,9-15],NMI	Enabled	Item Help
IRQ 8 Break Suspend	Disabled	
RING Power Up Control	Disabled	Menu Level >>
PCIPME Power Up Control	Disabled	
KB Power ON Password	Enter	
Power Up by Alarm	Disabled	
x Month Alarm	NA	
x Day of Month Alarm	NA	
x Time (hh:mm:ss) Alarm	0 : 0 : 0	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

#### Ring Power Up Control

During Disabled, the system will ignore any incoming call from the modem. During Enabled, the system will boot up if there's an incoming call from the modem.

#### PCIPME Power Up Control

This will enable the system to wake up by PCI device Power Management function.

The settings are: Enabled and Disabled.

#### KB Power ON Password

This item can setting Power On Password, if you Enabled keyboard Power On function then you can Power On system by key-in the password which you setting.

#### Power Up by Alarm

This function is for setting date and time for your computer to boot up. During Disabled, you cannot use this function. During Enabled, choose the Date and Time Alarm:

##### Date(of month) Alarm

You can choose which month the system will boot up. Set to 0, to boot every day.

##### Time(hh:mm:ss) Alarm

You can choose what hour, minute and second the system will boot up.

**Note:** If you have change the setting, you must let the system boot up until it goes to the operating system, before this function will work.

## 3-9 PnP/PCI Configuration Setup

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
PnP/PCI Configurations

Reset Configuration Data	Disabled	Item Help
Resources Controlled By	Manual	
> IRQ Resources	Press Enter	Menu Level >
PCI/VGA Palette Snoop	Disabled	Default is Disabled.
Assign IRQ For VGA	Enabled	Select Enabled to
Assign IRQ For USB	Enabled	reset Extended System
		Configuration Data
		(ESCD) when you exit
		Setup if you have
		installed a new add-on
		and the system
		reconfiguration has
		caused such a serious
		conflict that the OS
		cannot boot
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot. The settings are: Enabled and Disabled.

### Resource Controlled By

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®95/98. If you set this field to “manual” choose specific resources by going into each of the sub menu that follows this field (a sub menu is preceded by a “>”).

The settings are: Auto(ESCD), Manual.

### IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on

the type of device using the interrupt.  
Please refer to section 3-9-1

### PCI/VGA Palette Snoop

Leave this field at *Disabled*. The settings are Enabled, Disabled.

## 3-9-1 IRQ Resources

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

### IRQ Resources

IRQ-3 assigned to	PCI Device	Item Help
IRQ-4 assigned to	PCI Device	Menu Level >>  Legacy ISA for devices Compliant with the Original PC AT bus Specification, PCI/ISA PnP for devices Compliant with the Plug and Play standard Whether designed for PCI or ISA bus architecture
IRQ-5 assigned to	PCI Device	
IRQ-7 assigned to	PCI Device	
IRQ-9 assigned to	PCI Device	
IRQ-10 assigned to	PCI Device	
IRQ-11 assigned to	PCI Device	
IRQ-12 assigned to	PCI Device	

↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

## 3-10 PC Health Status

This section shows the Status of you CPU, Fan, Warning for overall system status. This is only available if there is Hardware Monitor onboard.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

### PC Health Status

Shutdown Temperature	Disabled	Item Help
Show PC Health in Post	Enabled	Menu Level >
Detect CPUFAN in Post	Enabled	
Current System Temp.	28°C/82°F	
Current CPU Temperature	29°C/84°F	
Current CPUFAN Speed	4687 RPM	
Current SYSFAN Speed	0 RPM	
Vcore	1.69V	
Vcc3.3	3.31V	
+ 5V	5.00V	
+12V	+ 12.02V	

-12V 5VSB (V)	- 12.16V 5.45V	
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

### Show PC Health in Post

During Enabled, it displays information list below. The choice is either Enabled or Disabled

### Current CPU Temperature/Current System Temp/Current CPUFAN, SYSFAN Speed/Vcore/ Vcc/3.3V/+5V/+12V/-12V/5VSB(V)

This will show the CPU/FAN/System voltage chart and FAN Speed.

## 3-11 Miscellaneous Control

This section is for setting CPU Frequency Control.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
Miscellaneous Control

Auto Detect DIMM/PCI Clk <b>Enabled</b> Spread Spectrum                Disabled Clock Control                    By Hardware ** Current Host Clock is 100 MHz ** HOST clock at next boot is 100 Mhz ** Current DRAM Clock is 100 MHz ** DRAM clock at next boot is 100 Mhz (HOST CLK)	Item Help  Menu Level >
↑ ↓ → ← Move Enter:Select Item +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults	

### Auto Detect DIMM/PCI Clk

This item allows you to enable/disable auto detect DIMM/PCI Clock.

The settings are: Enabled, Disabled.

### Clock Control

This item allows you to set the CPU Host Clock by Hardware (Jumper [S1](#)), or by Software (BIOS)

### Host clock at next boot is

When Clock Control setting By Software this item allows you to set CPU Host Clock step by step from 100MHz to 166MHz, use Page Down/Page Up key can change the frequency to approach over clocking.

### DRAM clock at next boot is



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This item allows you to set the DRAM clock synchronous as CPU Host Clock or Asynchronous as Host clock \*4/3 to approach your SDRAM specification.

## 3-12 Load Standard/Optimized Defaults

### Load Standard Defaults

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

Load Standard Defaults (Y/N)? N

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

### Load Optimized Defaults

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

Load Optimized Defaults (Y/N)? N

Pressing <Y> loads the default values that are factory settings for optimal performance system operations.

## 3-13 Set Supervisor/User Password

You can set either supervisor or user password, or both of them. The differences are:

**Supervisor password:** Can enter and change the options of the setup menus.

**User password:** Can only enter but do not have the right to change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

### ENTER PASSWORD:

Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to

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confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable a password, just press <Enter> when you are prompted to enter the password. A message will confirm that the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

#### **PASSWORD DISABLED.**

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require the BIOS to request a password every time your system is rebooted. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option. If the Security option is set to “System”, the password will be required both at boot and at entry to Setup. If set to “Setup”, prompting only occurs when trying to enter Setup.

## **第四章**

### **驅動程式和附贈軟體的安裝**

在主機板的包裝內含有一片 MAGIC INSTALL 光碟片。這張光碟片包含主機板所需的所有驅動程式和一些免費的應用軟體、工具軟體。並且，這光碟片也包含一個自動安裝程式的軟體，它能導引你進行驅動程式的安裝，以及何種驅動程式需要安裝，從而簡化安裝步驟，該安裝程式軟體就是本公司自行開發完成的 MAGIC INSTALL。

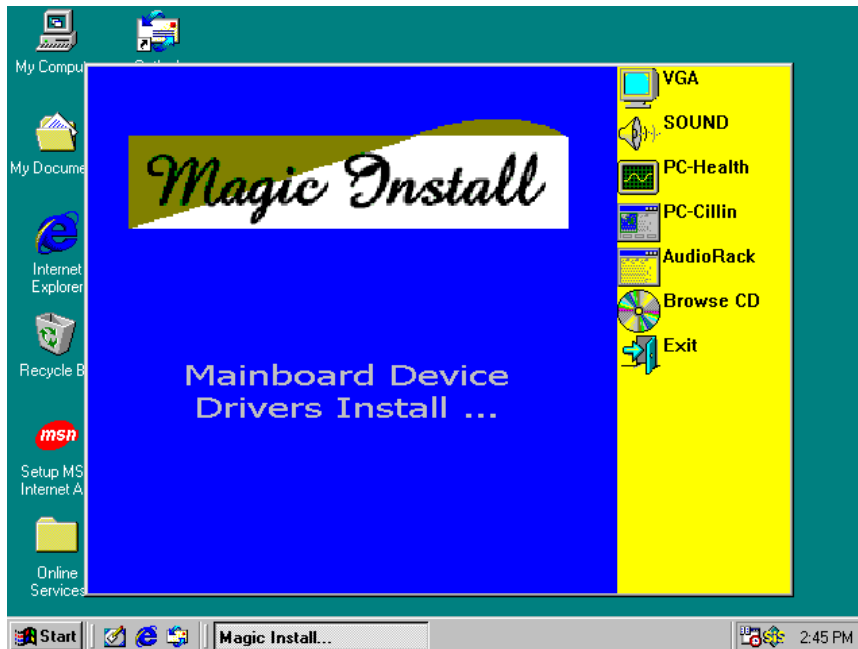
#### **支援 WINDOWS 95/98/98SE/NT4.0/2000 的 MAGIC INSTALL**

把光碟片插入光碟機，然後將出現 MAGIC INSTALL 主畫面。如果沒有出現此畫面，請按下“我的電腦”然後選擇光碟機，或者在 “開始” 的目錄選擇“執行”，輸入“X:\

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SETUP.EXE” (假設你的光碟機路徑是 X :) )



在 MAGIC INSTALL 主畫面有 7 項選擇：

- |              |                         |
|--------------|-------------------------|
| 1. VGA       | 安裝 SiS 630/730 VGA 驅動程式 |
| 2. SOUND     | 安裝內建之 AC'97 音效驅動程式      |
| 3. PC-HEALTH | 安裝 WINBOND 硬體監控程式       |
| 4. PC-CILLIN | 安裝 PC-CILLIN2000 防病毒程式  |
| 5. AUDIORACK | 安裝音效裝置之應用軟體             |
| 6. BROWSE CD | 瀏覽 CD 內容                |
| 7. EXIT      | 退出 MAGIC INSTALL 目錄     |

## 4-1 VGA 安裝 SiS 630/730 VGA 驅動程式

檔案路徑：

**WINDOWS 9X：**

**X:\SIS630\VGA\WIN9X\SETUP.EXE (含 Windows 98/98SE/ME)**

**WINDOWS NT4.0：**

**X:\SIS630\VGA\WINNT40**

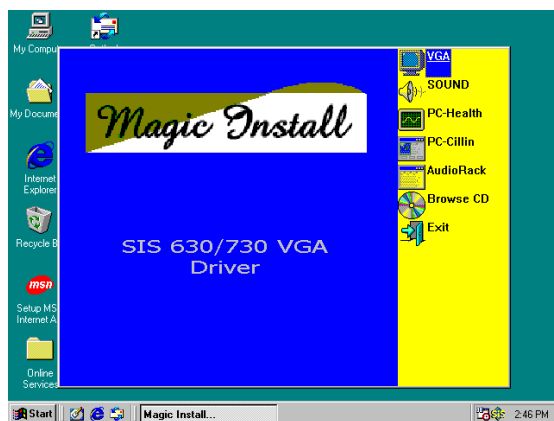
**WINDOWS 2000：**

**X:\SIS630\VGA\WIN2000\SETUP.EXE**

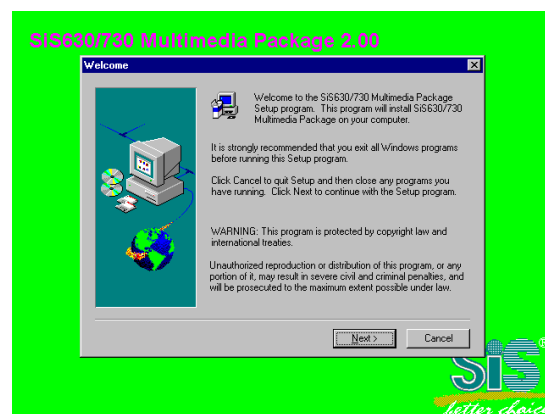
**LINUX：**

**X:\SIS630\LINUX**

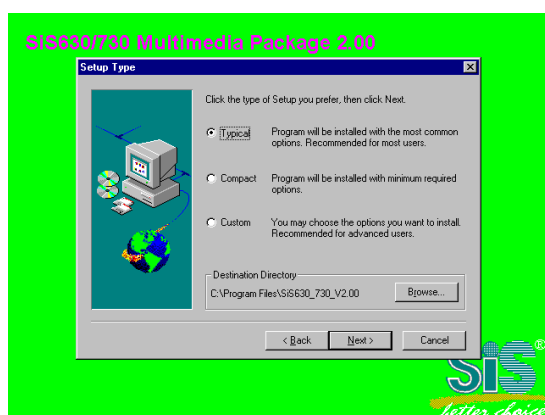
**A. WINDOWS 95/98/98SE/98ME/2000 VGA 驅動程式的安裝：**



1. 在 MAGIC INSTALL 介面單擊 VGA 的選項。

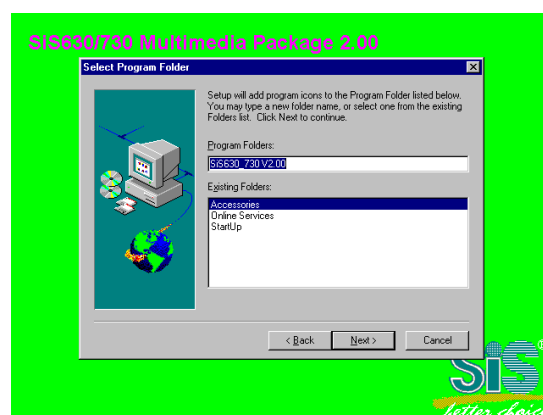


2. 當 SiS630/730 Multimedia Package 畫面出現後，單擊 NEXT。

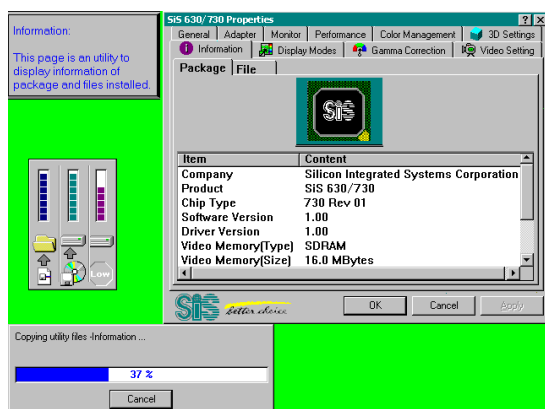


3. Multimedia Package 可支援 Typical、Compact、Custom 三種不同的設定。

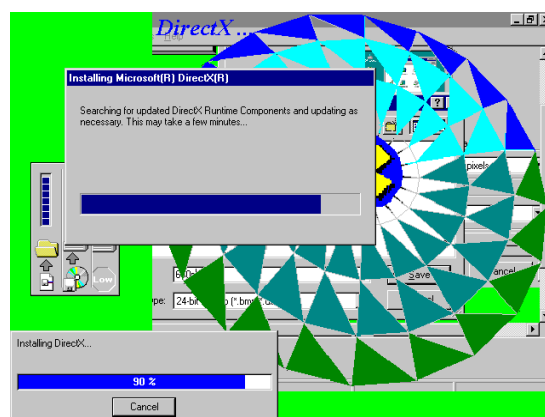
請點選 Typical 然後單擊 Next 繼續下一個步驟。



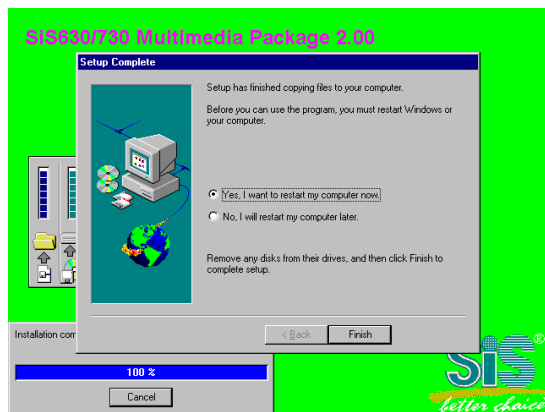
4. 系統會將軟體圖示加至程式的檔案夾，單擊 Next 繼續。當 “Start Copying Files” 視窗出現後，單擊 Next。



5. 系統開始安裝 VGA 驅動程式。



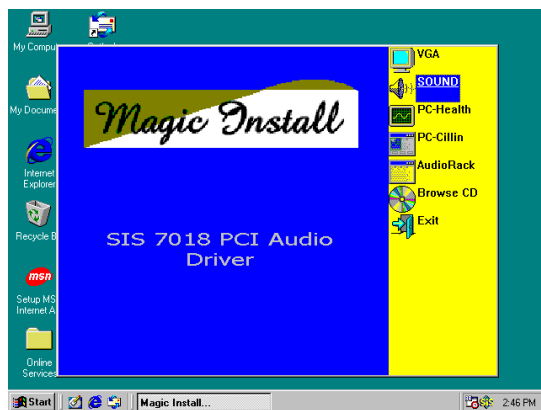
6. 安裝 Microsoft 的 Direct X。



7. 完成安裝程序後，請單擊 Finish 重新啟動電腦。

## 4-2 SOUND 安裝 SIS 7018 AC'97 音效驅動程式及應用軟體

檔案路徑為：X:\SIS630\SOUND\SETUP.EXE  
(可支援 WINDOWS 95/98/98SE/98ME/NT4.0/2000)



1. 在 MAGIC INSTALL 畫面單擊 SOUND 的選項。



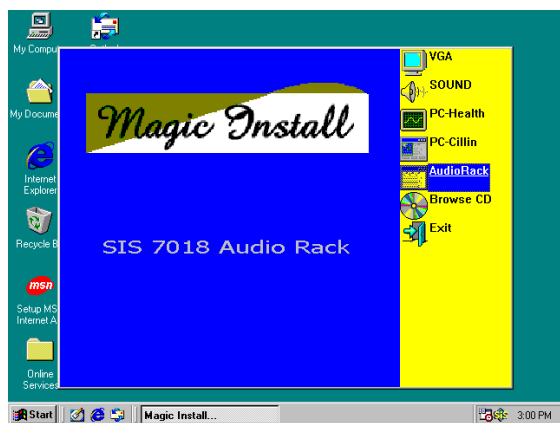
2. 當 SiS PCI Audio Driver Setup 安裝精靈出現時，單擊 NEXT。



3. 單擊 Next，即可開始安裝。



4. 選取 “Yes, I want to restart my computer now” 並單擊 Finish 即可完成安裝程序。



5. 在 MAGIC INSTALL 畫面單擊 Audio Rack 的選項。
6. 執行 \ Programs \ Audio Rack ，即可看到如下的畫面。



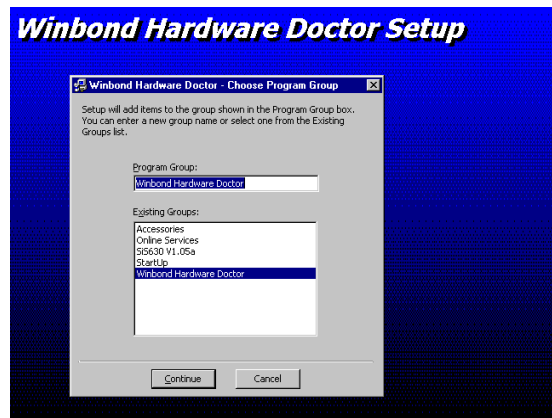
### 4-3 PC-HEALTH 安裝 WINBOND 硬體監控程式

檔案的路徑為 X:\SIS630\HEALTH-W\SETUP.EXE  
(只支援 WINDOWS 95/98/98SE/98ME)

在 Windows 95/98 下安裝 WINBOND 硬體監控程式時，因為該監控程式需要拷貝某些系統檔案至共用程式，所以此一監控軟體需安裝兩次方能完成安裝程序。



1. 在 MAGIC INSTALL 畫面單擊 PC – HEALTH 。
2. 當 Winbond Hardware Doctor 的安裝視窗出現時，單擊 OK 。

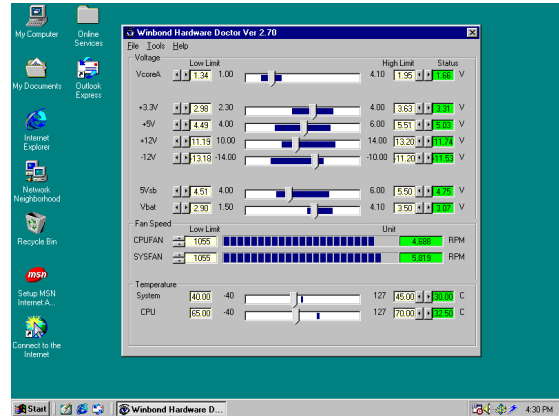


3. 如要開始安裝此監控軟體，請單擊畫面中圖示的 Button 。
4. 你可在此輸入檔案群組名稱，或單擊 Continue 使用內定之名稱繼續安裝，完成安裝後請單擊 OK 。

### 4-3-1 使用 WINBOND 硬體監控程式

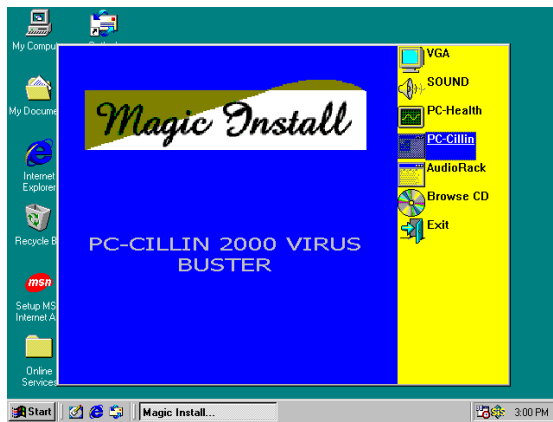


1. 選取 Programs \ Winbond Hardware Doctor \ Hardware Doctor，即可出現如右的畫面。  
你亦可經由選取 Control Panel \ Add/Remove Program 來移除這個程式。

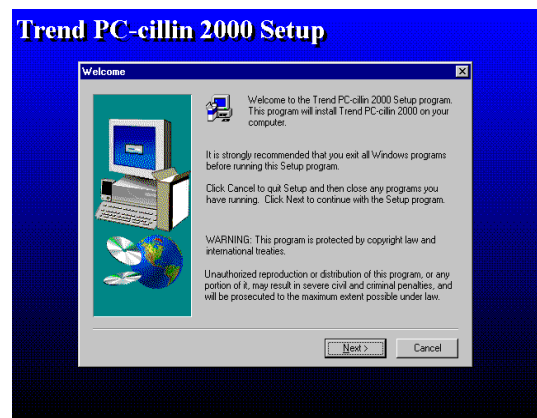


2. 你可透過此程式監控風扇轉速及 CPU、SYSTEM 的溫度。因為此一軟體為即時監控程式，所以裡面的值會依實際狀況而有所不同。當所偵測到的數值高於內定值得時候，系統將會出現警告訊息和警告聲。

#### 4-4 PC-CILLIN 安裝 PC-CILLIN 2000 防病毒程式及應用軟體



1. 在 MAGIC INSTALL 畫面單擊 PC-CILLIN 的選項。

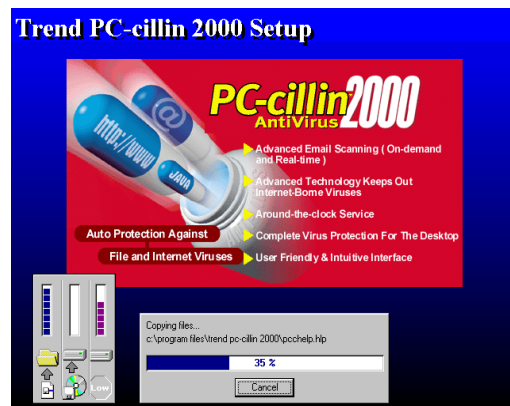
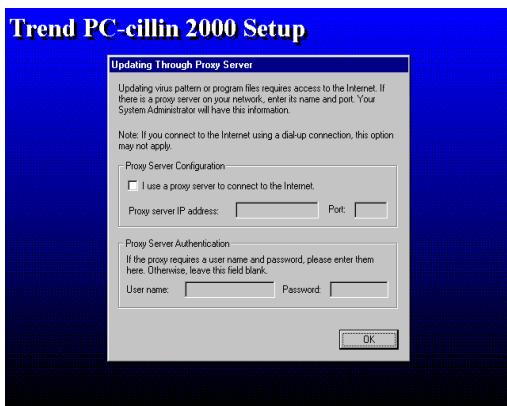


2. 當“PC-CILIN 2000”視窗出現後，單擊“NEXT”，即可出現版權說明，單擊“YES”，軟體就開始檢查硬碟。

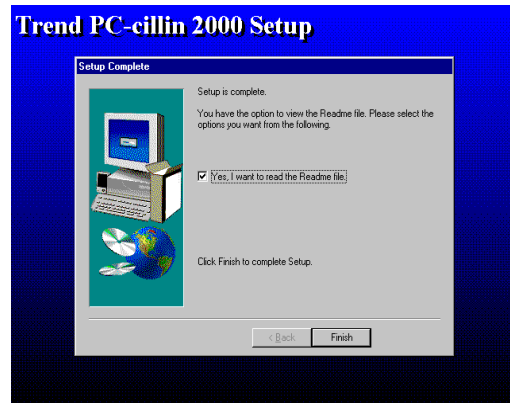
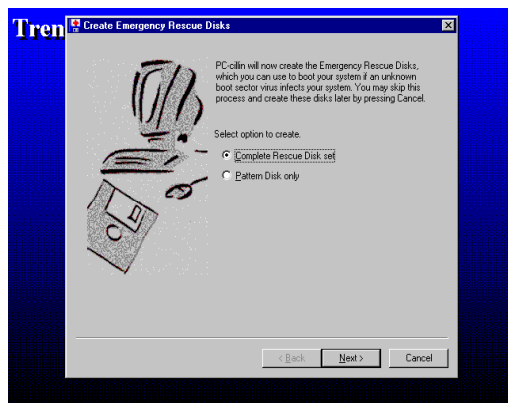




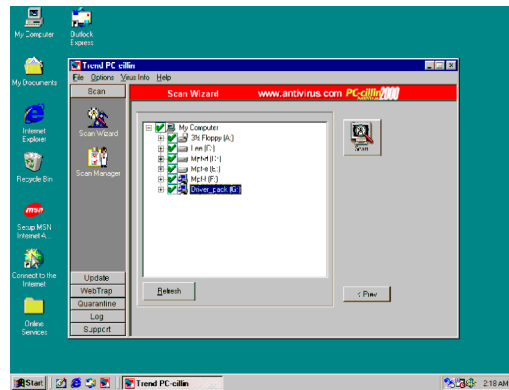
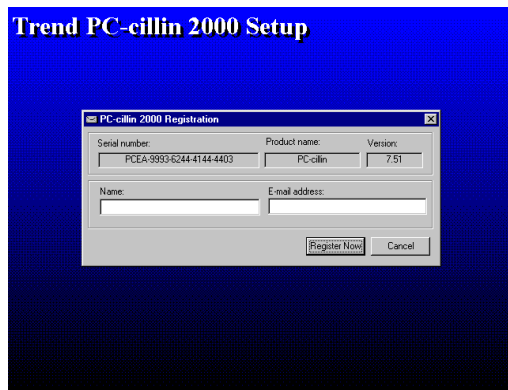
3. 單擊“NEXT”或選“BROWSE”改變安裝路徑。
4. 完成安裝後，選擇 YES 或 NO，確定是否要將 PC-CILLIN 加到 ACTIVE CHANNEL 或你的網際網路瀏覽器。



5. 選按 OK。如果你有使用 Proxy Server，請輸入該設定。
6. 單擊“Next”，即可開始安裝檔案。



7. 如果你想製造一片緊急修復磁碟片，請將空白磁碟片插入 1.44MB 軟碟機。
8. 單擊“Finish”，重新啟動系統。



9. 輸入你的名字和 E-mail 位址，以便註冊 PC-cillin 2000，或選按“Cancel”日後再註冊。
10. PC-cillin 2000 安裝完成後，我們建議你選取“update”選項來下載最新的防毒碼，並將它設定成“Auto refresh”的模式。

## 4-5 如何關閉內建式音效功能

進入 BIOS SETUP 程式，選擇 INTEGRATE PERIPHERALS，選擇 ON-CHIP DEVICE FUNCTION，選擇 AC97 AUDIO，按 PAGE DOWN 鍵選擇 Disable，即可關閉主機板上的音效裝置。

## 4-6 怎樣更新 BIOS

- 第一步. 準備一張啟動磁片 (你可以在“開始/執行”中輸入“SYS A:”，單擊“確定”)。
- 第二步. 將工具軟體複製到啟動磁片，可以將光碟片的 X:\FLASH\AWDFLASH.EXE 複製到磁碟片，或從我們的網頁下載。
- 第三步. 從我們的網頁下載最新的 **830CN BIOS**，並複製到啟動磁片。
- 第四步. 插入啟動磁片到 A 磁碟槽，啟動系統，看到“A:”的提示後，輸入“Awdf flash A:\**830CNxxx.BIN/SN/PY/CC/R**”指令，**830CNxxx.BIN** 代表最新版本的 BIOS，它有可能是 **830CNA03.BIN** 或 **830CNB02.BIN**。  
SN 表示 不保存現在的 BIOS 數據  
PY 表示 更新 BIOS 數據  
CC 表示 清除 CMOS 數據  
R 表示 重新啟動系統
- 第五步. 按 ENTER 鍵，等 BIOS 被重新更新後，系統即自動重新啟動。