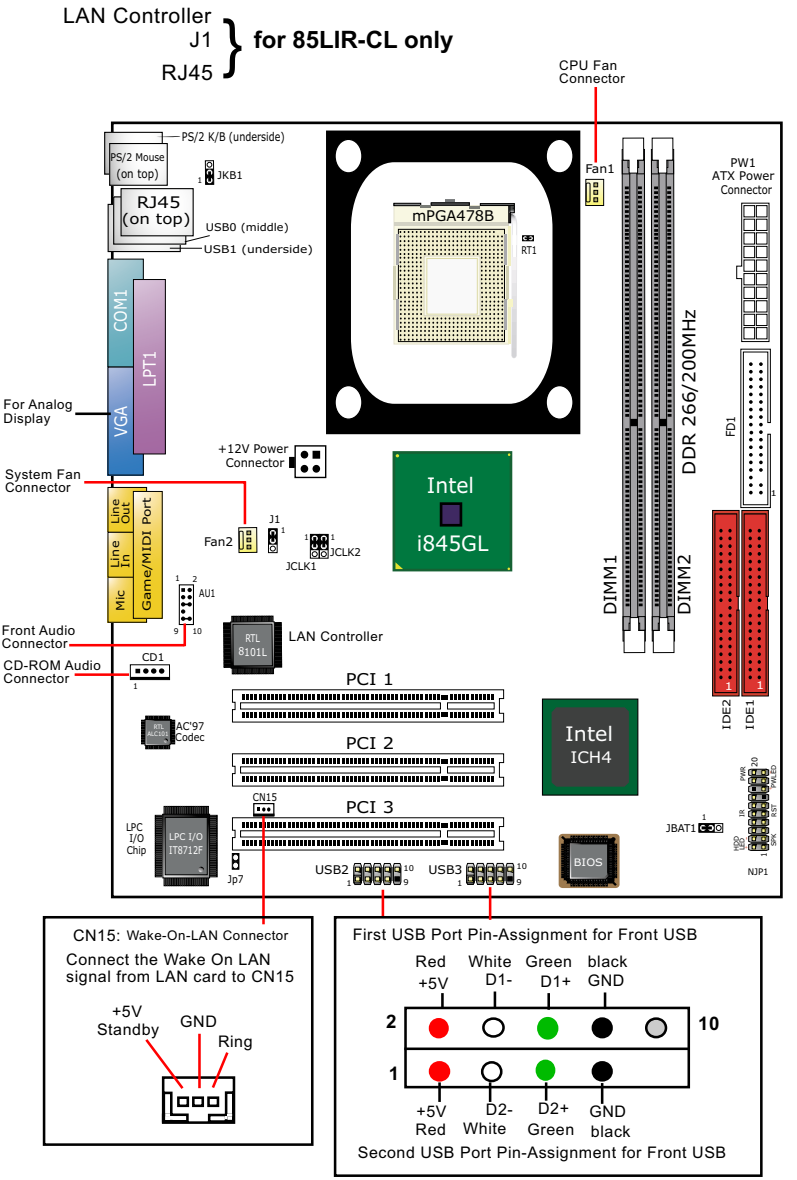
Chapter 1 Specification

1-1 Mainboard Layout and Components Setup



1-2 Mainboard Specification

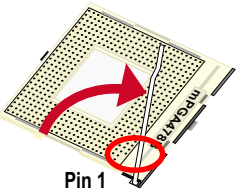
85LIR-C/85LIR-CL Specifications and Features		
CPU	Socket 478B for P4 CPU	
North Bridge	Intel 845GL, supporting *800/*533/400MHz FSB	
South Bridge	Intel ICH4	
BIOS	AMI BIOS	
Memory	Supporting DDR 266 DRAM, up to 2GB in 2 DDR DIMM slots	
I/O Chip	IT8712F, with Hardware Monitor	
AGP Slot	None	
Audio	AC'97 Audio 2.1 compliant, 2 channel audio	
IDE Interface	2 UATA 66/100 IDE ports	
VGA Display	1 x VGA connector on board for analog display	
PCI Slots	3 PCI Master slots on board	
I/O Connectors	6 USB2.0 ports, 1 FDD port, 1 COM port, 1 LPT, 1 IrDA, 1 PS/2 Keyboard, 1 PS/2 Mouse	
Networking	LAN Controller RTL8101L and Connector RJ45 (for 85LIR-CL only)	
Other common features	BIOS Writing Protection Keyboard/Mouse Power On/Wake Up ATX 2.03 Power Supply Micro ATX Form Factor	
Models / Optional Features	85LIR-C	85LIR-CL
LAN Controller on board	No	Yes

*** Note: FSB 800/533MHz is supported by Jumper Setting only.**

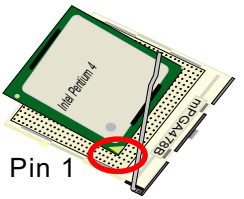
1-3 Pentium 4 CPU and CPU Fan Installation

1-3.1 P4 CPU Installation

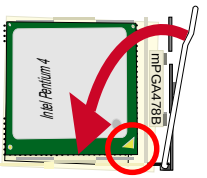
1. First pull sideways the lever of Socket 478, and then turn it up 90^0 so as to raise the upper layer of the socket from the lower platform.



2. Configure Pin 1 of CPU to Pin 1 of the Socket, just as the way shown in the diagram on the right. Adjust the position of CPU until you can feel all CPU pins get into the socket with ease.

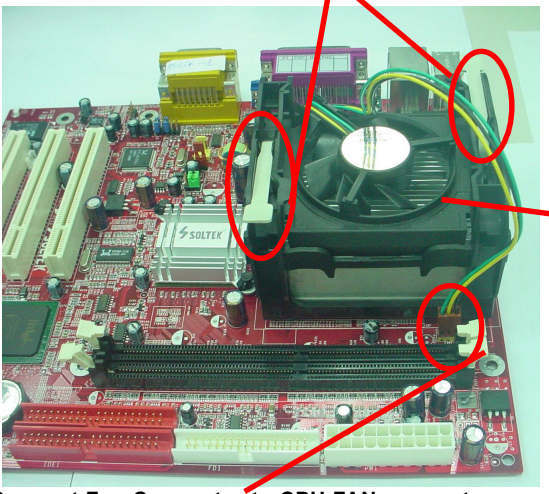


3. Make sure that all CPU pins have completely entered the socket and then lower down the lever to lock up CPU to socket.



1-3.2 P4 CPU Fan Installation

Press down Fan Latches to fix Cooling Fan to Fan Base.



P4 CPU Cooling Fan

Connect Fan Connector to CPU FAN connector

1-4 Jumper Settings

The following diagrams show the locations and settings of jumper blocks on the mainboard.

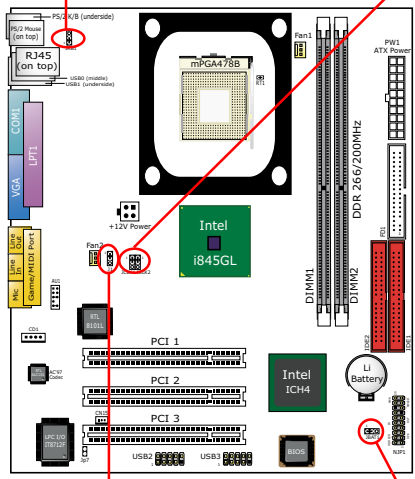
JKB1:
KB/Mouse
Power On / Wake Up

1 **1-2 closed (default)**
KB/Mouse Power On / Wake Up Disabled

1 **2-3 closed**
KB/Mouse Power On / Wake Up Enabled

JCLK1&JCLK2:
CPU Frequency Select

	JCLK1	JCLK2
CPU Auto-Detection (default)	1	1
100MHz (FSB400)	1	1
133MHz (FSB533)	1	1
200MHz (FSB800)	1	1



J1:
LAN Controller Select
(85LIR-CL only)

1 **1-2 closed (default)**
LAN controller enabled

1 **2-3 closed**
LAN controller disabled

JBAT1:
Clear CMOS

1 **1-2 closed (default)**
To hold data

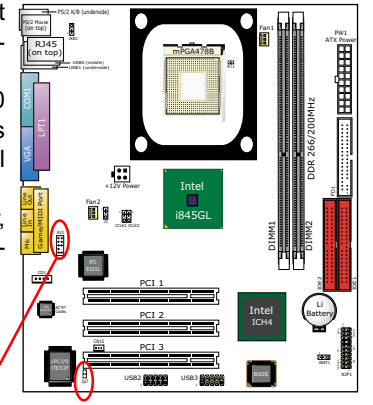
1 **2-3 closed**
To clear CMOS

1-5 Other Connectors Setup

1-5.1 Front Audio Connector

This Mainboard is designed with a Front Panel Audio connector "AU1" which provides connection to your chassis.

1. When AU1 is set to 5-6 closed and 9-10 closed, this default setting disables this connector and leaves the Back Panel Audio enabled.
2. To use this Front Panel Audio Connector, please open all pins of AU1 and connect it to your chassis.

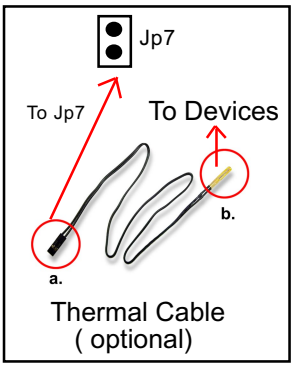


AU1: Front Panel Audio Connector

Pin 1 Mic In		Pin 2 Aud GND
Pin 3 Mic VREF		Pin 4 Aud Vcc
Pin 5 FPOUT R		Pin 6 RET R
Pin 7 (Key)		
Pin 9 FPOUT L		Pin 10 RET L

1-5.2 Jp7: Thermal Connector

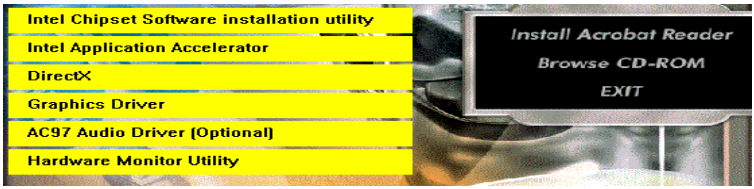
Connector JP7: A thermal cable is needed to connect JP7 to on-board devices such as HDD, Graphics card etc., so as to detect the temperature generated therein. Please connect the end (a) of the thermal cable to JP7, and tape another end (b) of thermal cable on to the device which you want to monitor. After you have finished the thermal cable installation, you will **see the detected temperature in BIOS setup or Hardware Monitor utility.**



Chapter 2 Software Setup

2-1 To Open up the Support CD

1. Please put the Support CD enclosed in your mainboard package into the CD-ROM drive. In a few seconds, the Main Menu will automatically appear, displaying the contents to be installed for this series:



2-2 To Install LAN Drivers (for 85LIR-CL only)

2-2.1 RTL8101L LAN driver on Windows 9X

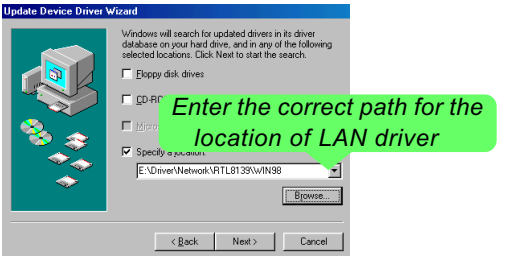
The LAN driver contained in the Support CD is not included in the Autorun Menu. To install RTL8101L LAN driver on Windows 9X, please follow the steps shown below:

1. On the “Start” screen of your system, please click to the following path:

   \My Computer\properties\Device manager

2. In the “Device manager” screen, you can see the item “ PCI Ethernet Controller” with a yellow question mark on its left side, which indicates that the LAN controller is already detected by system but the driver for this on-board RTL8101L Ethernet Controller is not installed yet. Please point to this item with your mouse and double click on it (or click the “Properties” button).
3. Instantly, the “PCI Ethernet Controller Properties“ screen shows up. Please click the “General” bar to continue.
4. In the “General” screen, click “reinstall Driver” button to continue. Please note that the status of “Device Usage” should stay at “Exists in all hardware profiles”.

5. In the “Update device Driver Wizard” screen, click “Next” to continue until you see a dialog box asking you to “Specify a location” for the driver. You should **now** insert the Support CD into your CD-ROM.
6. As illustrated in the picture below, check the item “Specify a location” and click the “Browse” button to find out the correct path for the driver. Supposing your CD-ROM drive is Drive E, please type: E:\Driver\Network\RTL8139\Win98 into the blank bar. (Please note that both RTL8101L and RTL8139C controllers are supported by Driver RTL8139.) Then click the “Next” button to continue.



7. The Update Device Driver Wizard will then go on installing the driver, until the “Insert Disk” dialog box shows up. Please withdraw your Support CD and insert the Win 98 CD-ROM into the CD-ROM drive for updating system and click “OK” to continue.
8. The Update Device Driver Wizard will then proceed to update the system with the LAN driver. When the “Finish” screen shows up, click “Finish” to continue.
9. Final Dialog box will appear to remind you that you must restart your computer to finish updating the new hardware. Please click “Yes” to restart system and finish the LAN driver installation.

2-2.2 RTL8101L LAN driver on Windows ME / 2000 / XP

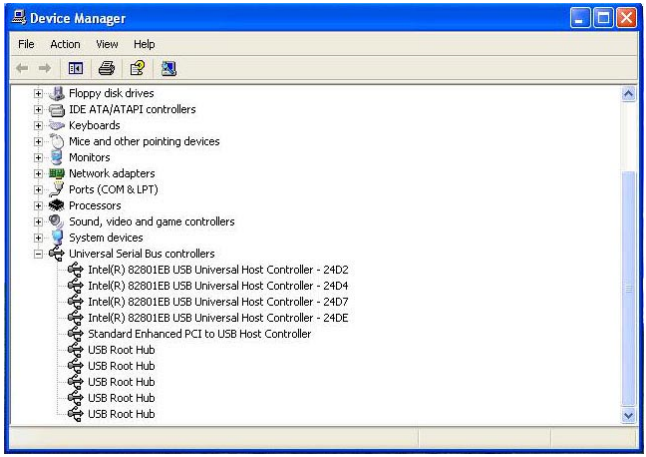
1. When you newly install Windows ME, Windows 2000 or Windows XP, the system will detect the LAN Controller on board and configure it automatically into system. Therefore, users need not bother to install the LAN controller into these operating systems.
2. To verify the existence of RTL8101L Controller and Driver, please enter the “Control Panel” of your system and click “Network” to open the “Configuration” screen. You can then see the “Realtek8139 (A/B/C) PCI Fast Ethernet Adapter” is already installed in system.

2-3 To Install USB 2.0 Driver for Windows 2000/XP

USB V2.0 with its 480Mb/s transfer rate supports operating system Windows 2000 and Windows XP via the Windows 2000 and Windows XP Service Pack. Users should install the latest Service Pack for Windows 2000 or Windows XP. (Intel USB 2.0 does not support Win 9X/Me.)

1. After installation of Intel Chipset software installation Utility in Windows 2000 or Windows XP, start to install the latest Service Pack version into the operating system. The installation of the latest Service Pack will support USB2.0 in Windows 2000 or Windows XP now.(The latest Service Pack can be found in Microsoft Web Site.)

2. To verify USB2.0 installation, please enter “Device Manager” of “My Computer”. On the “Device Manager” screen, you should be able to see the item “Standard Enhanced PCI to USB Host Controller”, verifying USB2.0 Driver is installed successfully.



SL-85LIR-C / 85LIR-CL Quick Installation Guide

Brochage composite Gesamtübersicht Conector de dispositivos Conectores em Pinos
設備連接埠 複合ヘッダ 다목적 콘넥터 التوصيلات الداخلية

1
Interruptor de Força
Interruptor de Energía
System ein/aus Schalter
パワースイッチ
Connecteur du Switch Power On
電源開關
전원 스위치 연결
مفتاح الطاقة الكهربائية

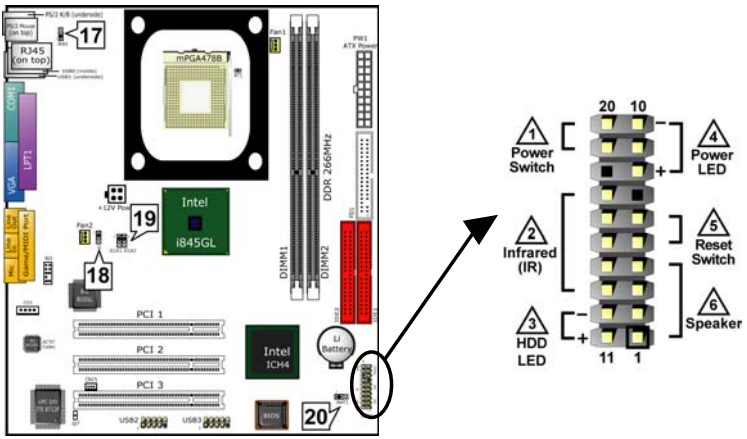
3
HDD LED
HDD LED
HDD LED
HDD LED
Connecteur du témoin d'activité du disque dur
硬碟指示燈
하드 드라이브 LED 연결
مؤشر ضوئي للقرص الصلب الأول

5
Interruptor de Reset
Interruptor de Reset
Neustart Schalter
リセットスイッチ
Connecteur du bouton Reset
系統重設接頭
리셋 스위치 연결
مفتاح إعادة التشغيل

2
Infravermelho (IR)
Conector de infrarrojos
Infrarot
赤外線 (IR)
Connecteur IR (Infrarouge)
紅外線連接頭
자외선 콘넥터(IR) 연결
أشعة تحت الحمراء

4
LED de Modo Suspenso
LED de Modo Suspenso
Ruheanzeige
一時停止 LED
Connecteur du témoin de mise en veille
休眠指示燈
씨스펜드 LED 연결
مؤشر ضوئي لحالة السبات

6
Alto-falante
Altavoz
Lautsprecher
スピーカー
Connecteur du haut-parleur
喇叭接頭
스피커 연결
السماعات



Réglage des cavaliers Jumper-Einstellungen Configuración de Jumper Configuração de Jumper
跳線設定 ジャンパーセッティング 점퍼 세팅 إعدادات الجامبر

Allumage / Réveil par Clavier /Souris JKB1 1-2=Mis hors service (par défaut) 2-3=Activée	*Ligar no Teclado/Rato de arranque / acordar* JKB1 1-2=Desabilitado (Padrão) 2-3=Habilitado	*キーボード/マウス力の電源を入れること/ウェクーウプ* **JKB1** **1-2= 設定無効にする (デフォルト)** **2-3= 設定有効**
Tastatur/ Maus Energie ein /Aufwachen JKB1 1-2=Deaktiviert (Standard) 2-3=Aktiviert	17 JKB1 **KB/Mouse Power on / Wake up** 1 1-2 (default) 1 2-3	***키보드/마우스 전원 - 온/절전모드에서 해제*** **JKB1** **1-2= 사용금지 (기본값)** **2-3= 사용가능**
Teclado/Ratón de Energía /Wakeup JKB1 1-2=Desactivado (por defecto) 2-3=Activado	***鍵盤/滑鼠 開機/喚醒 功能*** **JKB1** **1-2= 關閉功能 (預設值)** **2-3 = 開啓功能**	التشغيل عبر \ ميزة التشغيل لوحة المفاتيح \ فأرة JKB1 2-1 غير مفعل (افتراضي) 3-2 مفعل

SL-85LIR-C / 85LIR-CL Quick Installation Guide

Sélection du contrôleur LAN
J1 (uniquement sur la SL-85LIR-CL)
1-2=LAN activé (par défaut)
2-3=LAN désactivé

Seleção de Controladora de Rede
J1 (somente SL-85LIR-CL)
1-2=Habilitar Rede (padrão)
2-3=Desabilitar Rede

LAN 装置の設定
J1 (SL-85LIR-CL のみ搭載)
1-2=LAN を使用する場合 (デフォルト)
2-3=LAN を使用しない場合

LAN Controller Ausgewählt
J1 (Nur SL-85LIR-CL)
1-2=Lan zur verfügung (Standard)
2-3=Lan nicht verfügbar

18 J1 **LAN Controller Select** (SL-85LIR-CL only)

LAN 콘트롤러 선택
J1 (SL-85LIR-CL 모델만 해당)
1-2=LAN 사용 (기본값)
2-3=LAN 사용 안함

Selección del LAN Controller
J1 (SL-85LIR-CL solamente)
1-2=LAN Activado (por defecto)
2-3=LAN Desactivado

LAN 裝置設定
J1 (僅供給 SL-85LIR-CL)
1-2= 開啓 LAN 功能(預設值)
2-3= 關閉 LAN 功能

الاختيار الخاص ببطاقة الشبكة
J1 (فقط للموديل SL-85LIR-CL)
2-1 = تفعيل بطاقة الشبكة (افتراضي)
3-2 = إبطال بطاقة الشبكة

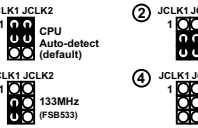
Sélection de la fréquence du CPU
JCLK1 & JCLK2
① Autodétection du CPU (par défaut)
② Pour une fréquence CPU de 100MHz
③ Pour une fréquence CPU de 133MHz
④ Pour une fréquence CPU de 200MHz

Seleção de Clock do CPU
JCLK1 & JCLK2
① Detecção automática do CPU (Padão)
② Para 100MHz de Clock do CPU
③ Para 133MHz de Clock do CPU
④ Para 200MHz de Clock do CPU

CPU クロック設定
JCLK1 & JCLK2
① は CPU 自動検出設定用 (デフォルト)
② は 100MHz 使用時の設定
③ は 133MHz 使用時の設定
④ は 200MHz 使用時の設定

CPU Clock Einstellungen
JCLK1 & JCLK2
① CPU Autodetect (Standard)
② Fur 100MHz CPU Clock
③ Fur 133MHz CPU Clock
④ Fur 200MHz CPU Clock

19 JCLK1 & JCLK2 **CPU Clock Select**



CPU 클럭 선택법
JCLK1 & JCLK2
① CPU 클럭 자동 선택 (기본값)
② 100MHz CPU 클럭 선택
③ 133MHz CPU 클럭 선택
④ 200MHz CPU 클럭 선택

Selección de Clock del CPU
JCLK1 & JCLK2
① CPU Autodetect (por defecto)
② Para 100MHz CPU Clock
③ Para 133MHz CPU Clock
④ Para 200MHz CPU Clock

CPU 頻率設定
JCLK1 & JCLK2
① CPU 自動偵測 (預設值)
② 選擇 100MHz CPU 頻率
③ 選擇 133MHz CPU 頻率
④ 選擇 200MHz CPU 頻率

وضعيات الوصلة JCLK1 & JCLK2
لاختيار سرعة تردد ناقل المعالج
① اختيار تلقائي للسرعة (افتراضي)
② للسرعة 100 MHz للناقل
③ للسرعة 133 MHz للناقل
④ للسرعة 200 MHz للناقل

Effacement du CMOS
JBAT1
1-2 Conservation des données (par défaut)
2-3 Effacement du CMOS

Limpar dados do CMOS
JBAT1
1-2 Reter Dados (Padrão)
2-3 Limpar dados do CMOS

CMOS データを消却
JBAT1
1-2 データを記憶する (デフォルト)
2-3 CMOS データを消却

CMOS Daten löschen
JBAT1
1-2 Daten erhalten (Standard)
2-3 CMOS Daten löschen

20 JBAT1 **Clear CMOS**

CMOS 데이타 삭제
JBAT1
1-2 원래값 유지 (기본값)
2-3 현재 CMOS 데이타 삭제

Borrar el CMOS
JBAT1
1-2 Retener Dados (por defecto)
2-3 Borrar el CMOS

清除 CMOS 功能
JBAT1
1-2 記憶資料 (預設值)
2-3 清除 CMOS 功能

استعادة الوضع الافتراضي لنظام الدخل والخرج الأساسي
JBAT1
2-1 = وضع الحفاظ على المعلومات (افتراضي)
3-2 = استعادة الوضع الافتراضي للمصنع

Chapter 3 AMI BIOS Setup

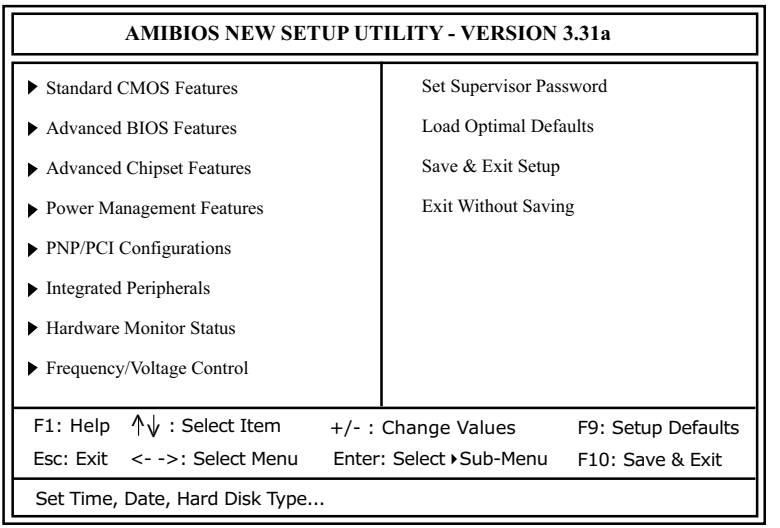
3-1 BIOS SETUP --- CMOS Setup Utility

This mainboard comes with the AMI BIOS from American Megatrends Inc. Enter the CMOS Setup Utility Main Menu by:

1. Turn on or reboot your system. After a series of diagnostic checks, the following message will appear:

   PRESS <Del> TO RUN SETUP

2. Press the <Del> key and the main program screen will appear as follows:



3. Use the arrow keys on your keyboard to select an option, and press <Enter>. Modify the system parameters to reflect the options installed in your system.
4. You may return to the Main Menu anytime by pressing <ESC>.
5. In the Main Menu, “Save & Exit Setup” saves your changes and reboots the system, and “Exit Without Saving” ignores your changes and exits the program.

3-2 Standard CMOS Setup

System Time	00 19 29
System Date	May 09 2003 Mon

- Floppy options.
- IDE Device Config

3-3 Advanced BIOS Features

Quick Boot	Enabled
Delay for Hard Drive (Sec.)	2
1st Boot Device	Floppy: 1.44 MB 3.5
2nd Boot Device	CD-ROM
3rd Boot Device	IDE-0 :Maxtor 20560 A4 -
Try Other Boot Devices	Yes
Initial Display Mode	Silent
Display Mode at Add-On ROM Init	Force BIOS
S.M.A.R.T for Hard Disks	Disabled
Bootup Num-lock	On
Floppy Drive Swap	Disabled
Floppy Drive Seek	Disabled
PS/2 Mouse Support	Enabled
Primary Display	VGA/EGA
Password Check	Setup
Boot To OS/2	No
CPU Microcode Updation	Enabled
L1 Cache	Enabled
L2 Cache	Enabled
System BIOS Cacheable	Enabled
C000,32K Shadow	Cached
C800,16K Shadow	Disabled
CC00,16K Shadow	Disabled
D000,16K Shadow	Disabled
D400,16K Shadow	Disabled
D800,16K Shadow	Disabled
DC00,16K Shadow	Disabled

3-4 Advanced Chipset Features

DRAM Timing	
SDRAM Frequency	Auto
Configure SDRAM timing by SPD	Enabled
SDRAM CAS# Latency	(2.5 Clocks)
SDRAM RAS# Precharge	(3 Clocks)
SDRAM RAS# to CAS# Delay	(3 Clocks)
SDRAM Precharge Delay	(7 Clocks)
SDRAM Burst Length	(4)
Memory Hole	Disabled
(Hyper-threading Function)	(Enabled)
Internal Graphics Mode Select	1MB
AGP Aperture Size	64MB
USB Controller	6 USB Ports
USB 1.1 Device Legacy Support	Disabled
USB 1.1 Port 64/60 Emulation	Disabled

Display Setting	
Boot Display Device	Auto
Flat Panel Type	640x480LVDS
TV Standard	Auto
Flat Panel Scaling	Auto

3-5 Power Management Features

ACPI Standby State	S1/POS
Power Management/APM	Enabled
Video Power Down Mode	Suspend
Hard Disk Power Down Mode	Stand By
Standby Time Out (Minute)	Disabled
Suspend Time Out (Minute)	Disabled
Power Button Function	On/Off
Restore on AC/Power Loss	Power Off
Resume On Ring	Disabled
Resume On LAN	Disabled
Resume On PME#	Disabled
Resume On RTC Alarm	Disabled
RTC Alarm Date	15
RTC Alarm Hour	12
RTC Alarm Minute	30
RTC Alarm Second	30

3-6 PNP / PCI Configurations

Clear NVRAM	No
PCI Latency Timer (PCI Clocks)	32
Init. Graphics Adapter Priority	Internal VGA
PCI IDE Busmaster	Enabled
PCI Slot1 IRQ Priority	Auto
PCI Slot2 IRQ Priority	Auto
PCI Slot3 IRQ Priority	Auto

3-7 Integrated Peripherals

Onboard IDE	Both
Onboard AC'97 Audio	Auto
Onboard FDC	Auto
Onboard Serial Port 1	Auto
Onboard Serial Port 2	Auto
Serial Port 2 Mode	Normal
Onboard Parallel Port	Auto
Parallel Port Mode	ECP
Parallel Port IRQ	Auto
Parallel Port DMA Channel	Auto
Onboard MIDI Port	Disabled
Midi IRQ Select	5
OnBoard Game Port	200
K/B Power-on Function	Disabled
Stroke Keys Selected	N/A
PS/2 Mouse PowerOn Function	Disabled

3-8 Hardware Monitor Status

Temperature 1	44 ^{0}C/111 ^{0}F
Temperature 2	-55 ^{0}C/-131 ^{0}F
Temperature 3	
Fan 1 Speed	4891 RPM
Fan 2 Speed	4905 RPM
Fan 3 Speed	0 RPM
CPU Vcore	+1.680 V
+1.5V	+1.504 V
+3.3V	+3.408 V
+5.0V	+5.126 V
+12.0V	+11.187V
-12.0V	-11.972V
-5.0V	-4.939V
5V SB	+5.164V
Battery	+3.296V

3-9 Frequency/Voltage Control

RedStorm Overclocking Tech (Optional)	(Press Enter)
CPU Ratio Selection	Locked
CPU Linear Freq	Disabled
CPU Clock	(133 MHz)
PCI Clock Auto Detection	Disabled
Spread Spectrum Selection	Disabled
AGP Voltage Control	1.5V
DIMM Voltage Control	2.5V