Item Checklist

Completely check your package. If you discover damaged or missing items, contact your retailer.

- ☑ SynactiX 5EP/5EI mainboard
- ☑ QDI Driver Utility CD
- ☐ I/O shield(optional)
- ☑ 1 HD IDE cable
- ☑ 1 FDD cable
- ☑ QDI Serial Product R.M.A. Warranty Card
- ☑ User's manual

Notice

The information in this document is subject to change in order to improve reliability, design, or function without prior notice and does not represent a commitment on the part of this company. In no event will we be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or the possibility of such damages.

All trademarks are the property of their respective owners.

If you require further information, please visit our web-site: "www.qdigrp.com".

Declaration of conformity

$$C\epsilon$$

QUANTUM DESIGNS(HK) LTD.

20th Floor, Devon House, Taikoo Place, 979 King's Road,

Quarry Bay, Hong Kong

declares that the product

Mainboard

SynactiX 5EP/5EI

is in conformity with

(reference to the specification under which conformity is declared in

accordance with 89/336 EEC-EMC Directive)

☑ EN 55022   Limits and methods of measurements of radio disturbance
characteristics of information technology equipment

☑ EN 50081-1   Generic emission standard Part 1:
Residential, commercial and light industry

☑ EN 50082-1   Generic immunity standard Part 1:
Residential, commercial and light industry

European Representative:

QDI COMPUTER (UK) LTD	QDI COMPUTER (SCANDINAVIA) A/S
QDI SYSTEM HANDEL GMBH	QDI EUROPE B. V.
QDI COMPUTER (FRANCE) SARL	QDI COMPUTER HANDELS GMBH
LEGEND QDI SPAIN S.L .	QDI COMPUTER (SWEDEN) AB

Signature : _Xu Wenge_   Place / Date :   HONG KONG/2001

Printed Name :   Xu   Wenge   Position/ Title :   Assistant President

Declaration of conformity

FC

Trade Name:	QDI Computer (U. S . A.) Inc.
Model Name:	SynactiX 5EP/5EI
Responsible Party:	QDI Computer (U. S. A.) Inc.
Address:	41456 Christy Street
	Fremont, CA 94538
Telephone:	(510) 668-4933
Facsimile:	(510) 668-4966
Equipment Classification:	FCC Class B Subassembly
Type of Product:	Mainboard
Manufacturer:	**Quantum Designs (HK) Inc.**
Address:	20th Floor, Devon House, Taikoo Place
	979 King's Road, Quarry Bay, HONG
	KONG

Supplementary Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Tested to comply with FCC standards.

Signature :_____   Date : _____2001_____

⚠ Note:

This manual is suitable for SynactiX 5EP/5EI series of mainboards. Each mainboard is carefully designed for the PC user who wants diverse features.
SynactiX 5EP: without ISA slot , onboard audio and LAN
SynactiX 5EI: with ISA slot, without onboard audio and LAN
-A: with onboard audio
-L: with onboard LAN
-AL: with onboard audio and LAN

CONTENTS

CONTENTS

⚠ Caution 1

Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, especially the SDRAM memory, otherwise your mainboard or the system memory might be seriously damaged.

⚠ Caution 2

Be sure to add some Silicone Grease between the CPU and the heatsink of FAN to keep them fully contact , meanwhile to meet the heat sink requirement.

-- This page is intentionally left blank --

Chapter 1
Introduction

Overview

SynactiX 5EP/5EI green mainboard utilizes Intel®815EP chipset, 815EP contains two components: the 82815EP-B step Memory Controller Hub(MCH) and the 82801BA I/O Controller Hub2(ICH2), providing a fully compatible, high performanced and cost-effective PC/ATX platform. The new integrated technologies, together with AGP 4X support, AC'97 audio(optional, support up to 6 channels with CNR), integrated LAN(optional), 4 USB ports, and ATA100/66, give customers an advanced, multimedia solution at an extremely low price. It provides 66/100/133 MHz system bus to support all Intel®Pentium III FC-PGA, Celeron FC-PGA, Tualatin FC-PGA2 processors. 100/133MHz SDRAMs are supported up to 512MB. It also provides advanced features such as Wake up by USB devices, Wake-on-LAN, Wake-on-Modem, ACPI and Keyboard Password Power-on functions. StepEasy, our new innovation is also supplied to enable you to adjust CPU frequency step by step easily to meet your need.

Key Features

Form factor

- ATX form factor of 305mm x 210mm.

Microprocessor

- Supports all Intel®Pentium III(Coppermine) FC-PGA processors at 533/600/667/733/800/866/933MHz/1GHz with 133MHz bus speed.
- Supports all Intel®Pentium III(Coppermine) FC-PGA processors at 500/550/600/650/700/750/800/850MHz/1GHz/1.1GHz and future processors with 100MHz bus speed.
- Supports all Intel®Celeron FC-PGA processors at 533/566/600/633/667/700/733MHz and future processors with 66MHz bus speed.
- Supports all Intel®Celeron FC-PGA processors at 800/850MHz and future processors with 100MHz bus speed.
- **Supports all Intel® Pentium III(Tualatin) FC-PGA2 processors at 1.13/1.20/1.26GHz and future processors with 133MHz bus speed.**
- Supports 66/100/133MHz host bus speed.
- The CPU core voltage adjustable from 1.05V to 1.825V automatically through onboard switching voltage regulator with VID(Voltage ID).

System memory

- Provides three 168-pin 3.3V unbuffered DIMM sockets.
- Supports 64-bit wide DIMM modules with 100/133MHz SDRAM devices.
- Supports 32MB to 256MB SDRAM using 16MB/64MB/128MB technology.
- Supports 512MB SDRAM using 256MB technology.
- Supports up to three double-sided DIMMs(6 Rows) at 100MHz system memory bus.
- Supports up to two double-sided or three single-sided DIMMs(4 Rows Max) at 133MHz system memory bus(PC-133).

Onboard IDE

- Supports Independent timing of up to 4 drives.
- Supports Ultra ATA 100/66, PIO mode.
- Implements Write Ping-Pong Buffer for faster write performance.
- Two fast IDE interfaces supporting four IDE devices including IDE hard disks and CD-ROM drives.

Onboard LAN (SynactiX 5EP-L/-AL, SynactiX 5EI-L/-AL available)

- 10/100 Mbit/sec Ethernet support.
- 10/100M LAN interface built-in on board.

4 USB

- 2 UHCI Host Controllers with total of 4 ports.
- USB 1.1 compliant.
- Supports wake-up from S1 (power on suspend), S3 (STR) (depend on device).

Onboard I/O

- Winbond W83627HF LPC I/O chip.
- One floppy port supporting up to two 3.5″ or 5.25″ floppy drives with 360K/720K/1.2M/1.44M/2.88M format.
- Two high speed 16550 compatible UART (COM1/COM2/COM3/COM4 selective) with 16-byte send/receive FIFO.
- One joystick port.
- Infrared interface.
- All I/O ports can be enabled/disabled in the BIOS setup.

Onboard Audio(SynactiX 5EP-A/-AL, SynactiX 5EI-A/-AL available)

- AC'97 2.1 Specification Compliant.
- Provides onboard Line-in Jack, Microphone-in Jack, Speaker-out Jack with onboard amplifier and MIDI/Joystick Connector.

AGP Interface

- AGP Universal Connector supports AGP 2.0 including AGP 4x data transfers.

Advanced features

- PCI 2.2 Specification Compliant.
- Provides Trend ChipAwayVirus On Guard.
- Provides Norton AntiVirus.
- Supports Windows 95/98/2000/ME soft-off.
- Supports Wake-on-LAN and Wake-on-Modem.
- Supports Keyboard Password Power-on function.
- Supports system monitoring(monitors CPU and system temperatures, system voltages, fan speed).
- Supports management applications such as QDI's ManageEasy .
- Providing QDI innovations such as SpeedEasy, RecoveryEasy, BIOS-ProtectEasy(to protect the system BIOS from being attacked by severe virus such as CIH), LogoEasy, ManageEasy, BootEasy and StepEasy (new feature).

BIOS

- Licensed advanced AWARD(Phoenix) BIOS, supports flash ROM with 2Mb memory size, plug and play ready.
- Supports IDE CD-ROM or SCSI boot up.

Green function

- Supports ACPI (Advanced Configuration and Power Interface) and ODPM (OS Directed Power Management).
- Supports ACPI power status: S0 (full-on), S1 (power on suspend), S3 (STR), S4(STD)(Windows Me, Windows 2000) and S5 (soft-off).

Expansion slots

- 1 AGP slot.
- 6 PCI slots (SynactiX 5EP series).
- 5 PCI slots + 1 ISA slot (SynactiX 5EI series).
- 1 CNR slot.

-- This page is intentionally left blank --

Chapter 2

Installation Instructions

This section covers External Connectors and Jumper Settings. Refer to the mainboard layout chart for locations of all jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular state of the jumpers, connectors and ports are illustrated in the following figures. Before setting the jumpers or inserting these connectors, please pay attention to the directions.

Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, otherwise your mainboard and expansion cards might be seriously damaged.

External Connectors

PS/2 Keyboard/Mouse Connector

PS/2 keyboard connector is for the usage of PS/2 keyboard. If using a standard AT size keyboard, an adapter should be used to fit this connector. PS/2 mouse connector is for the usage of PS/2 mouse.

PS/2 Mouse Connector ◄
PS/2 Keyboard Connector ◄

USB1, 2 and LAN Connectors (SynactiX 5EP-L/-AL, SynactiX 5EI-L/-AL available)

Two USB ports are for connecting USB devices. The RJ-45 connector is for onboard LAN.

LINK   Active

LAN(optional) ◄
USB1 ◄
USB2 ◄
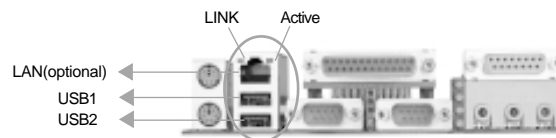
Parallel Port, Serial Port Connectors (UART1, UART2)

The parallel port connector can be connected to a parallel device such as a printer. The serial port UART1,2 connectors can be connected to a serial port device such as a serial port mouse. You can enable/disable them and choose the IRQ or I/O address in "Integrated Peripherals" from AWARD BIOS SETUP.

Parallel Port

UART1   UART2
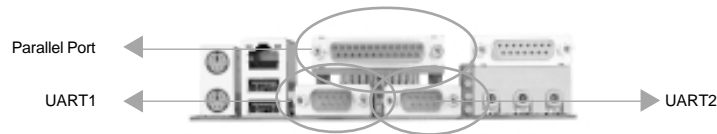
Line-in jack, Microphone-in jack, Speaker-out jack and MIDI/Joystick Connector (SynactiX 5EP-A/-AL, SynactiX 5EI-A/-AL available)

The Line-in jack can be connected to devices such as a cassette or minidisc player to playback or record. The Microphone-in jack can be connected to a microphone for voice input. The Speaker-out jack allows you to connect speakers or headphones for audio output from the internal amplifier. The MIDI/Joystick connector allows you to connect a game joystick or a MIDI device.

MIDI/Joystick

Optional

Speaker out   Line in   Microphone in
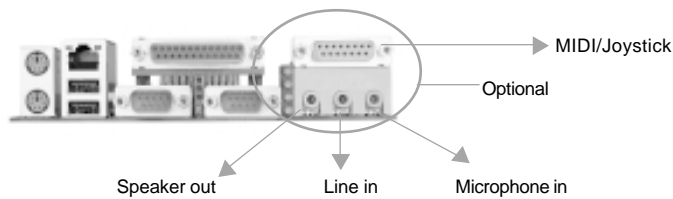
USB3, 4 Connectors

Two USB ports are not available on the back panel. Therefore, we provide a 10-pin cable (optional) to connect on-board USB header and USB devices.

+5V   GND
D1-   GND
D1+   D0+
GND   D0-
GND   +5V
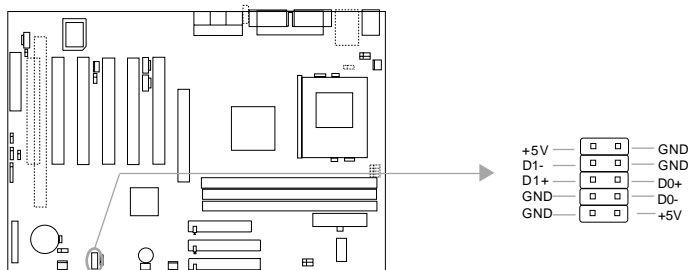
Diagnostic LED Function(Optional)

R1
R2
R3
R4

Diagnostic LED

Diagnostic LED Function				
R1	R2	R3	R4	Description
0	0	0	0	System Power ON
0	0	0	1	Early Chipset Initialization
0	0	1	0	Memory Detection Test
0	0	1	1	Decompressing BIOS image to RAM
0	1	0	0	Initializing Keyboard Controller
0	1	0	1	Testing VGA BIOS
0	1	1	0	Processor Initialization
0	1	1	1	Testing RTC(Real Time Clock)
1	0	0	0	Initializing Video Interface
1	0	0	1	BIOS Sign On
1	0	1	0	Testing Base and Extended Memory
1	0	1	1	Assign Resource to all ISA
1	1	0	0	Initializing Hard Drive Controller
1	1	0	1	Initializing Floppy Drive Controller
1	1	1	0	Boot Attempt
1	1	1	1	Operating System Booting

1=GREEN 0=RED

ATX Power Supply Connector & Power Switch (POWER SW)

Be sure to connect the power supply plug to this connector in its proper orientation. The power switch (POWER SW) should be connected to a momentary switch. When powering up your system, first turn on the mechanical switch of the power supply (if one is provided), then push once the power switch. When powering off the system, you needn't turn off the mechanical switch, just **_Push once_**[*] the power switch.

ATX Power Supply Connector

3.3V 3.3V GND 5V GND 5V GND PW-OK 5VSB 12V

1

20

3.3V -12V GND PS-ON GND GND GND -5V 5 V 5V
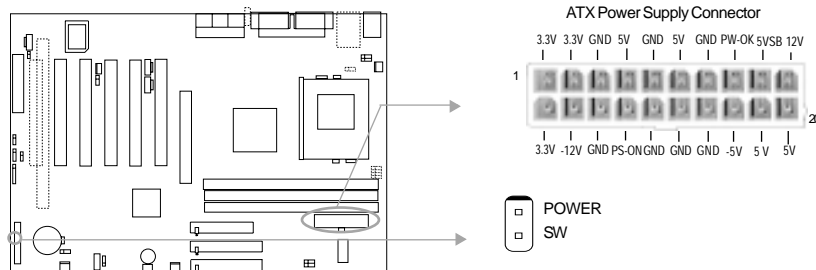
POWER
SW

Note: If you change "Soft-off by PWR-BTTN" from default "Instant-off" to "Delay 4 Secs" in the "POWER MANAGEMENT SETUP" section of the BIOS, the power switch should be pressed for more than 4 seconds before the system powers down.

Hard Disk LED Connector (HD_LED)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk. The connector has an orientation. If one way doesn't work, try the other way.

Reset Switch (RESET)

The connector connects to the case's reset switch. Press the switch once, the system resets.

Speaker Connector (SPEAKER)

The connector can be connected to the speaker on the case.

Power LED Connector (PWR LED)

When the system is in S0 status, the LED is on. When the system is in S1 status, the LED is blink. When the system is in S3, S4, S5 status, the LED is off. The connector has an orientation.

GREEN LED Connector (GREEN LED)

When the system is in S0, S1, S4, S5 status, the LED is off. When the system is in S3 status, the LED is on.

ACPI LED Connector (ACPI LED)(Reserved)

The ACPI LED is a double-color light with three pins. Pin1 and Pin2 drive different color lights. If Pin1 drives the orange light , then, Pin2 drives the green light, the following status will come out. When the system is in S0 status, the LED is green on. When the system is in S1 status, the LED is green blink. When the system is in S3 status, the LED is orange on. When the system is in S4, S5 status, the LED is off.

Hardware Green Connector (SLEEP SW)

Push once the switch connected to this header, the system enters suspend mode.

Key Lock Connector (KEYLK)

The connector can be connected to the keyboard lock switch on the case for locking the keyboard.

	HDD LED(+)	HDD LED(-)	
ACPI LED	Orange(-)	VCC	SPEAKER
	Green(-)	GND	
	LED+	NC	
POWER SW	POWER	SPKDATA	RESET
	GND	RESET	
	EMPTY	GND	
	EMPTY	EMPTY	
SLEEP SW	SLEEP	LED+	GREEN LED KEYLK
	GND	LED-	
PWR LED	LED+	LED-	
	LED-	GND	
	LED-	KEYLOCK	
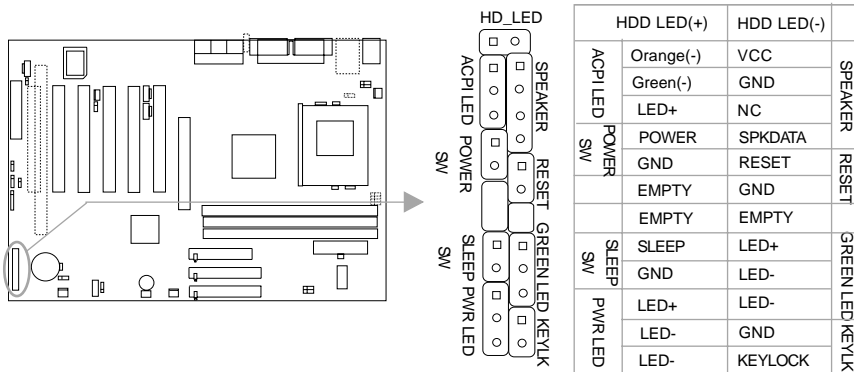
Infrared Header (IrDA)

This connector supports wireless transmitting and receiving. Before using this function, configure the settings for IR Address, IR Mode and IR IRQ from the "INTEGRATED PERIPH-ERALS" section of the BIOS.

```
5V ——
NC ——
IRRX ——
GND ——
IRTX ——
5VSB ——
```
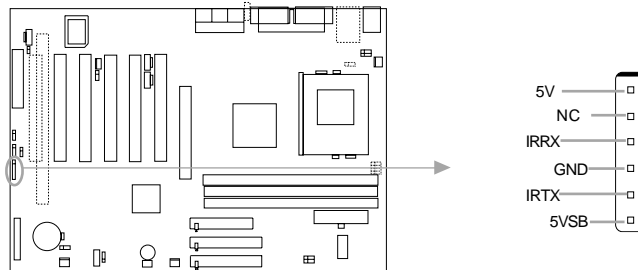
Fan Connector (PWRFAN, CPUFAN, CHSFAN)

The fan speed of these three fans can be detected and viewed in "PC Health" section of the BIOS. These three fans will be automatically turned off after the system enters suspend mode.

CPUFAN

```
FAN GND
+12V
SENSE
```

PWRFAN

```
SENSE +12V FAN GND
```

CHSFAN

```
SENSE    FAN GND
   +12V
```
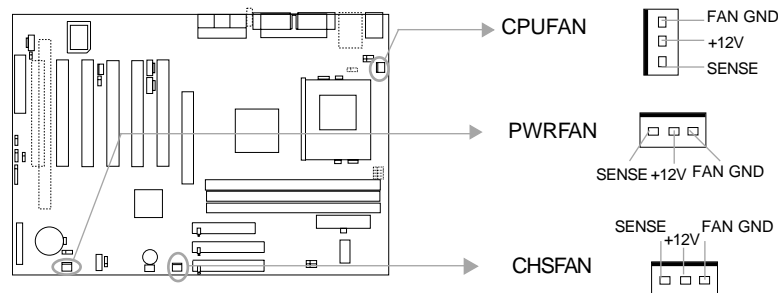
Sound Connector (PC-PCI)

This connector provides a bridge between the mainboard and PCI sound card to deliver sound compatibility under DOS real-mode environment.

```
GND
 PC-PCI DMA REQUEST
   SERIAL INTERRUPT REQUEST
2  4  6

1  3  5
    GND
  NC
PC-PCI DMA ACKNOWLEDGE
```
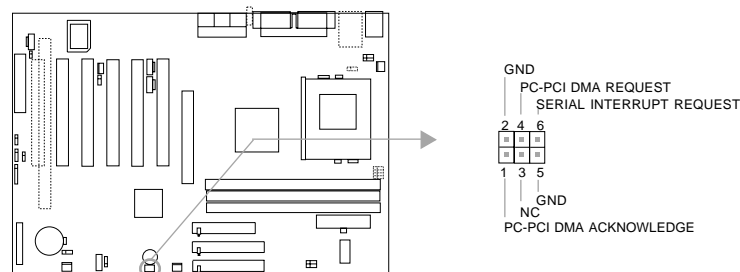
Wake-Up On LAN (WOL)

Through the Wake-Up On LAN function, a wake event occurring from the network can wake up the system. If this function is to be used, please be sure an ATX 2.01 power supply of which 5VSB line is capable of delivering 720mA, and a LAN adapter which supports this function is used. Then connect this header to the relevant connector on the LAN adapter, set "Wake-Up by LAN/Ring" as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save and exit, then boot the operating system once to make sure this function takes effect.
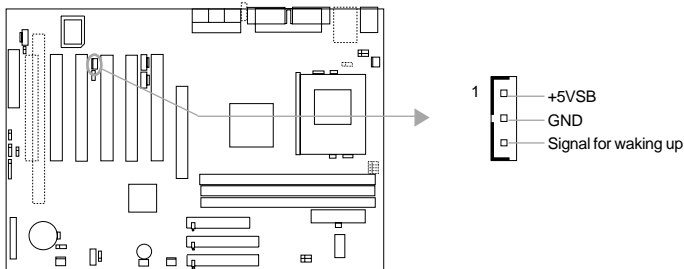
Wake-Up On Internal Modem (WOM)

Through this function, the system which is in the suspend or soft-off status can be waked up by a ring signal received from the internal modem. When this function is used, be sure an internal modem card which supports this function is used. Then connect this header to the relevant connector on the modem card, set "Wake-Up by LAN/Ring" as Enabled in the "Power Management Setup" section of the BIOS. Save and exit, then boot the operating system once to make sure this function takes effect.
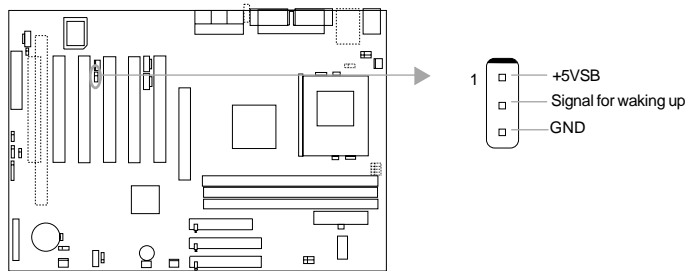
Audio Connector (CD_IN, MODEM, AUXIN)

CD_IN is a Sony standard CD audio connector, it can be connected to a CD-ROM drive through a CD audio cable. The MODEM connector allows the onboard audio to interface with a voice modem card with a similar connector. It allows connecting the mono_in (such as a phone) or mono_out (such as a speaker) between the onboard audio and the voice modem card. AUXIN allow you to receive stereo audio input from such sound sources as a CD-ROM,TV tuner,or MPEG card.

AUXIN
Left Audio Channel
GND
Right Audio Channel

MODEM
Mono-Out (to Modem)
GND
Phone-In (from Modem)

CD_IN
Right Channel
Common
Left Channel
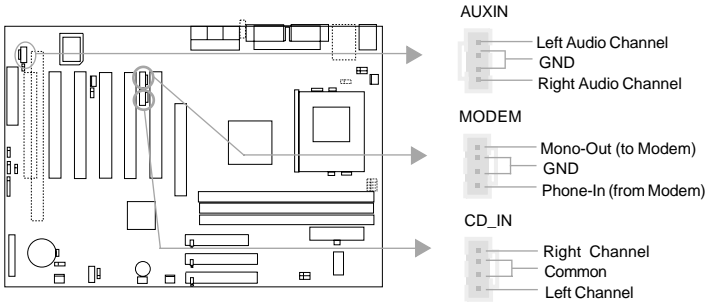
4 pin SMBus Connector(SMBUS)

This connector allows you to connect SMBus devices. SMBus devices communicate by means of the SMBus with an SMBus host and/or other SMBus devices. The SMBus or System Management Bus is a specific implementation of an I^2C bus, which is a multi-master bus, that is, multiple chips can be connected to the same bus and each one can act as a master by initiating data transfer.

1 SMBDATA
2 SMBCLK
3 GND
4 5VSB
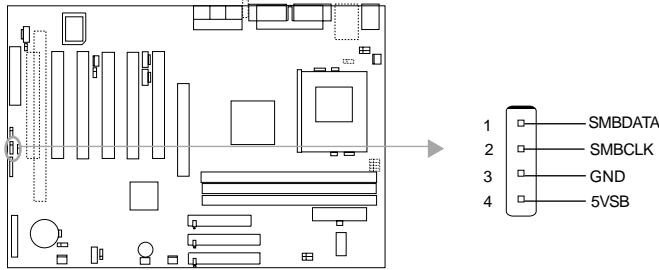
Communication and Networking Riser Interface Connector(CNR)

The maiboard provides this Communication and Networking Riser(CNR) interface which can support audio and/or modem functions . Furthermore, it provides a LAN interface for networking functions. What its superiority compared with AMR is being able to support plug-and-play function. Mechanically the CNR shares a PCI slot, thus when you insert the CNR card, the neighboring PCI slot cannot be used.

CNR Interface Connector
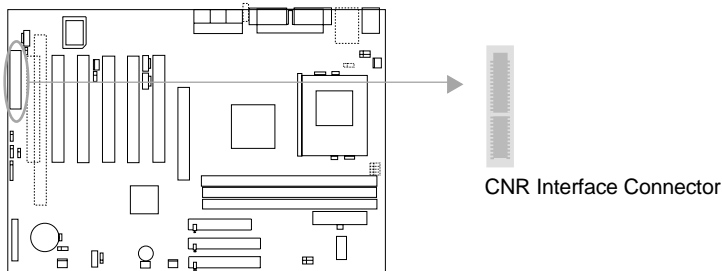
By using an audio codec, the AC'97 digital link providing by CNR allows for cost-effective, high-quality, integrated audio on the platform. In addition, an AC'97 soft modem can be implemented with the use of a modem codec. AC'97 digital link allows several external codecs to be connected to the ICH2. The digital link is expanded to support two audio codecs for up to 6 channels of PCM audio output (full AC-3 decode) or a combination of an audio and modem codec.

Chassis Security Switch (CHSSEC)

The connector connects to the chassis security switch on the case. The system can detect the chassis intrusion through the status of this connector. If the connector has been closed once, the system will record the status and indicate the chassis has been opened. You can receive this information from QDI ManageEasy software.

GND
Indicate signal
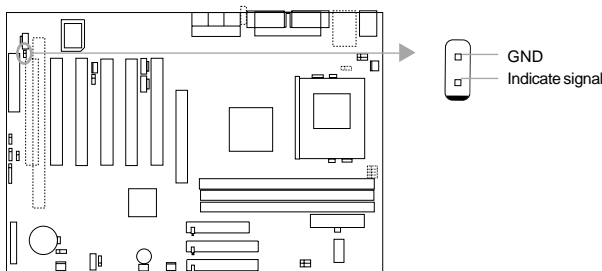
Expansion Slots & I/O Ports description

Slot / Port	Description
PCI1	First PCI slot.
PCI2	Second PCI slot.
PCI3	Third PCI slot.
PCI4	Fourth PCI slot.
PCI5	Fifth PCI slot.
PCI 6 or ISA	Sixth PCI slot or First ISA slot.
IDE1	Primary IDE port.
IDE2	Secondary IDE port.
CNR	CNR slot.
AGP	AGP slot.
FLOPPY	Floppy Drive Port.

Jumper Settings
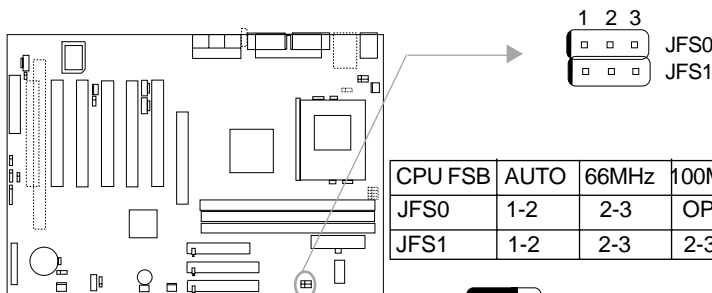
Jumpers are located on the mainboard, they represent, clear CMOS jumper JCC, enable keyboard password power-on function jumper JKB, and enable/disable onboard audio jumper JSD etc. Pin 1 for all jumpers are located on the side with a thick white line (Pin1→ ▫ ▫ ▫), referring to the mainboard's silkscreen. Jumpers with three pins will be shown as ■ ■ ▫ to represent pin1 & pin2 ("1-2") connected and ▫ ■ ■ to represent pin2 & pin3 ("2-3") connected. For default jumper settings, please refer to the following table:

JFS0	1-2	(Auto, FSB setting)
JFS1	1-2	(Auto, FSB setting)
JCC	2-3	(Normal Status)
JSD	2-3	(Enable onboard Audio)(Optional)
JKB	1-2	(Enable KB Power-on)
JVID0~4	1-2	(Auto, CPU core Voltage setting) (Optional)
JAV	Open	(Enable Flash BIOS)
JFUSB/JUSB	1-2	(Enable Front/Back Panel USB Device Wake-Up Function)

Overclocking Jumper Setting (JFS0, JFS1)

Jumpers labeled JFS0 and JFS1 are located on the mainboard providing users with CPU overclocking feature. The host bus speed can be set as 66/100/133MHz or AUTO. Refer to the chart below for the location of these jumpers, and the table for information on how to set them.

CPU FSB	AUTO	66MHz	100MHz	133MHz
JFS0	1-2	2-3	OPEN	OPEN
JFS1	1-2	2-3	2-3	OPEN

"1-2": pin1 & pin2 closed

"2-3": pin2 & pin3 closed

If CPU FSB is set as Auto (default), the system detects the CPU FSB (front side bus) automatically. If CPU FSB is set as 100MHz, the system will run at 100MHz even if a processor with 66MHz or 133MHz FSB is installed. Setting up to 133MHz using processors with 100MHz bus speed is also supported. However, whether or not the system can be overclocked depends on your processor's capability. Whether the processor is bus ratio locked or unlocked should also be taken into account. For bus ratio unlocked processor, this overclocking feature can be implemented by setting CPU FSB as 100/133MHz, meanwhile adjusting the bus ratio (multiplier) lower in "CPU SpeedEasy Setup" in AWARD BIOS CMOS Setup. You can also adjust the CPU frequency by running StepEasy. We do not guarantee the overclocking system will be stable.

Enable Front/Back Panel USB Device Wake-up Function (JFUSB/JUSB)

The mainboard provides the advanced USB device wake-up function. The system can be waked up from its power saving including ACPI S3 by activating USB device. Before using this function, set JFUSB/JUSB with pin1 & pin2 closed. Otherwise, set JFUSB/JUSB with pin2 & pin3 closed for disabling. Furthermore, the item "Wake-Up From S3 by USB"in BIOS setup should also be set corespondingly to enable or disable this function.
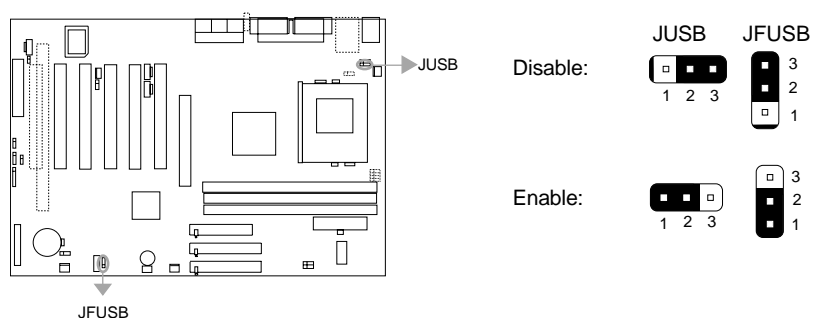
CPU Core Voltage Setting (JVID0~4) (Optional)

The Jumpers JVID0~4 allow you to adjust the CPU Core Voltage Manually to improve the CPU performance. But, we strongly recommend you not to adjust it unless you know the CPU well.

"Auto": pin1 and pin2 of JVID0, JVID1, JVID2 and JVID3 closed;

"0": pin2 and pin3 closed;

"1": pin1, pin2 and pin3 opened.
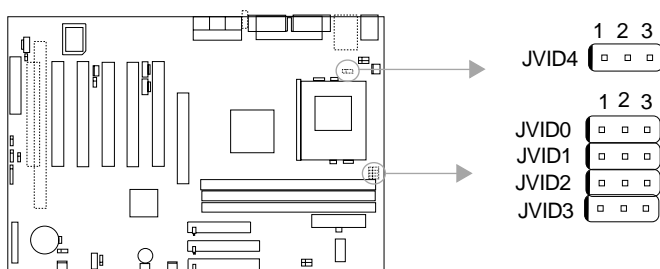
JVID4	JVID3	JVID2	JVID1	JVID0	Vcc CORE
0	0	1	0	0	1.05
1	0	1	0	0	1.075
0	0	0	1	1	1.10
1	0	0	1	1	1.125
0	0	0	1	0	1.15
1	0	0	1	0	1.175
0	0	0	0	1	1.20
1	0	0	0	1	1.225
0	0	0	0	0	1.25
1	0	0	0	0	1.275
0	1	1	1	1	1.30
1	1	1	1	1	1.325
0	1	1	1	0	1.35
1	1	1	1	0	1.375
0	1	1	0	1	1.40
1	1	1	0	1	1.425
0	1	1	0	0	1.45
1	1	1	0	0	1.475
0	1	0	1	1	1.50
1	1	0	1	1	1.525
0	1	0	1	0	1.55
1	1	0	1	0	1.575
0	1	0	0	1	1.60
1	1	0	0	1	1.625
0	1	0	0	0	1.65
1	1	0	0	0	1.675
0	0	1	1	1	1.70
1	0	1	1	1	1.725
0	0	1	1	0	1.75
1	0	1	1	0	1.775
0	0	1	0	1	1.80
1	0	1	0	1	1.825

Warning: To set CPU core voltage higher than its default core voltage is not suggested. If you do, we will not be responsible for any damages caused.

Clear CMOS (JCC)

If you want to clear CMOS, unplug the AC power supply first, close JCC (pin1 & pin2) once, set JCC back to the normal status with pin2 & pin3 connected, then power on the system.
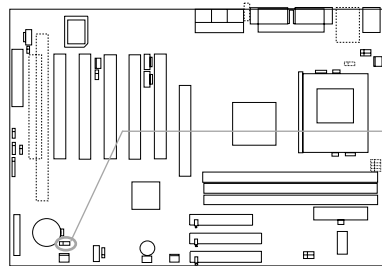
Normal status:　　JCC

Clear CMOS:　　JCC

(Unplug the AC power supply)

Enable/Disable onboard audio (JSD)
(SynactiX 5EP-A/-AL, SynactiX 5EI-A/-AL available)

If you want to use the on-board audio, set JSD with pin2 & pin3 closed (default). Otherwise, set JSD with pin1 & pin2 closed for disabling this function.
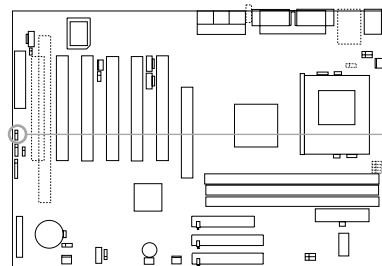
Enable on-board audio:

JSD

Disable on-board audio:

JSD

Enable keyboard password power-on function (JKB)

The mainboard provides the advanced keyboard password power-on function. Before using this function, set JKB with pin1 & pin2 closed. Otherwise, set JKB with pin2 & pin3 closed for disabling.

Disable: JKB
1 2 3

Enable: JKB
1 2 3
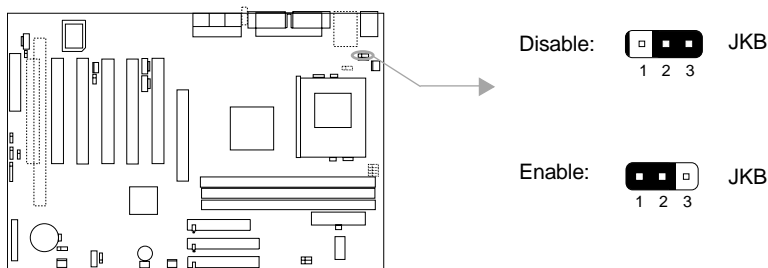
Furthermore in order to implement this function, set "POWER ON Function" to Password and enter the keyboard power-on password in the "INTEGRATED PERIPHERALS" section of the BIOS. Save and exit, then power off your system. In this case, the power button's power-on function has been disabled.

Note:

1. If using this function, 5VSB line of the power supply should be capable of delivering enough current (eg. 200mA) for all the devices connected to the keyboard port, if not, you will be unable to power up the system using the keyboard.

2. If you set JKB with pin2 & pin3 closed, set "POWER ON Function" to BUTTON ONLY, don't set it to Password, or you'll be unable to power up your system by the keyboard or the power button.

3. If you encounter the above problems, clear CMOS and set the jumper and BIOS option again.

BIOS Protection Jumper (JAV)

The BIOS of the mainboard is inside the FWH. If the jumper JAV is set as closed, you will be unable to flash the BIOS to the mainboard. However in this status, the system BIOS is protected from being attacked by serious virus such as CIH virus.

Flash Write Disabled   JAV

Flash Write Enabled   JAV
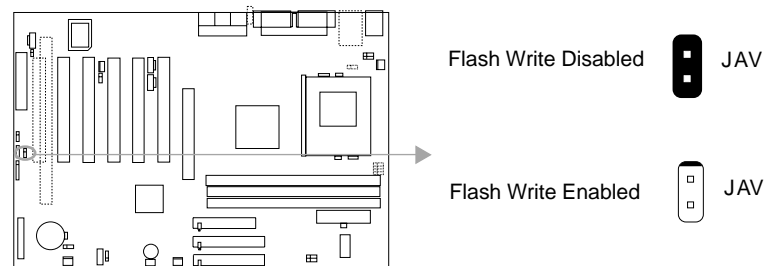
Setting the jumper JAV as open (default), meanwhile disabling the "Flash Write Protect" item in AWARD BIOS CMOS Setup, allows you to flash the BIOS to the flash ROM in FWH.

The DMI (Desktop Management Interface) system information such as the CPU type, speed, memory size, and expansion cards will be detected by the onboard BIOS and stored in the flash ROM in FWH. Whenever the system hardware configuration is changed, DMI information will be updated automatically. However, setting jumper JAV as closed makes flashing BIOS and updating DMI information impossible.

Additional Information

When you change a new CPU, whose bus ratio has not been locked, and is lower than that of the previous one, be sure to clear CMOS once before boot up, otherwise the previous CPU's higher bus ratio saved in CMOS will still take effect, and the new CPU may not work at that high speed.

-- This page is intentionally left blank --

Chapter 3
BIOS Description

Utility Support:

AWDFLASH.EXE

This is a flash memory write/read utility used for the purpose of upgrading your BIOS when necessary. Before doing so, please note:

- **We strongly recommend you only upgrade BIOS when encounter problems.**

- **Before upgrading your BIOS, review the description below to avoid making mistakes, destroying the BIOS and resulting in a non-working system.**

When you encounter problems, for example, you find your system does not support the latest CPU released on our current mainboard, you may therefore upgrade the BIOS, please don't forget to set JAV as open and disable the "Flash Write Protect" item in AWARD BIOS CMOS Setup first.

Follow the steps exactly for a successful upgrade.

1. Create a bootable system floppy diskette by typing Format A:/s from the DOS prompt under DOS6.xx or Windows 9x environment.

2. Copy AWDFLASH.EXE (version>7.95) from the directory \Utility located on QDI Mainboard Utility CD onto your new bootable diskette.

3. Download the updated BIOS file from the Website (http://www.qdigrp.com). Please be sure to download the suitable BIOS file for your mainboard.

4. Decompress the file downloaded, copy the BIOS file (xx.bin) onto the bootable diskette, and note the checksum of this BIOS which is located in readme file.

5. Reboot the system from the bootable diskette created.

6. Then run the AWDFLASH utility at the **A:** prompt as shown below:

   A:\AWDFLASH xxxx.bin

Follow the instruction through the process. Don't turn off power or reset the system until the BIOS upgrade has been completed.

If you require more detailed information concerning AWDFLASH Utility, for example, the different usage of parameters, please type A:\>AWDFLASH /?

Note:BIOS version will update constantly.We will not be responsible for any BIOS description differ from your mainboard BIOS shown.

AWARD(Phoenix) BIOS Description

Entering Setup

Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press the <Ctrl> + <Alt> + <Esc> keys, to enter the AWARD BIOS CMOS Setup Utility.

Press <Del> to enter SETUP

Once you have entered, the Main Menu (Figure 1) appears on the screen. The main menu allows you to select from eleven setup functions and two exit choices. Use the arrow keys to select among the items and press the <Enter> key to accept or enter the sub-menu.

Figure-1 Main Menu

Load Optimized Defaults

The Optimized Defaults are common and efficient. It is recommended users load the optimized defaults first, then modify the needed configuration settings.

Standard CMOS Features Setup

The basic CMOS settings included in "Standard CMOS Features" are Date, Time, Hard Disk Drive Types, Floppy Disk Drive Types, and VGA etc. Use the arrow keys to highlight the item, then use the <PgUp> or <PgDn> keys to select the value desired in each item.
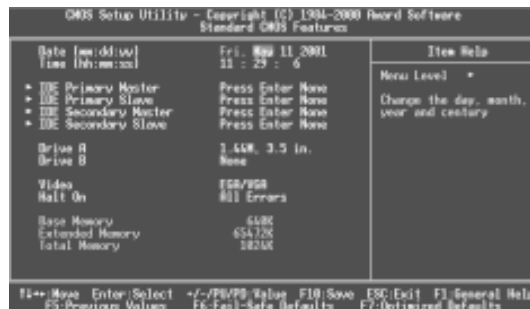
Figure-2   Standard CMOS Setup Menu

For the items marked, press enter, a window will pop up as shown below. You can view detailed information or make modifications.

Figure-2-1   IDE Primary Master Setup Menu

Hard Disk

Primary Master/Primary Slave/Secondary Master/Secondary Slave

These categories identify the HDD types of 2 IDE channels installed in the computer system. There are three choices provided for the Enhanced IDE BIOS: None, Auto, and Manual. 'None' means no HDD is installed or set; 'Auto' means the system can auto-detect the hard disk when booting up; by choosing 'Manual', the related information should be entered regarding the following items. Enter the information directly from the keyboard and press < Enter>:

CYLS	number of cylinders	HEAD	number of heads
PRECOMP	write pre-compensation	LANDZ	landing zone
SECTOR	number of sectors	MODE	HDD access mode

The Award BIOS supports 3 HDD modes: NORMAL, LBA and LARGE.

NORMAL

Generic access mode in which neither the BIOS nor the IDE controller will make any transformation during accessing. The maximum number of cylinders, heads and sectors for NORMAL mode are 1024,16 and 63.

If the user sets his HDD to NORMAL mode, the maximum accessible HDD size will be 528 megabytes even though its physical size may be greater than that.

LBA (Logical Block Addressing) mode

A new HDD accessing method to overcome the 528 Megabyte bottleneck. The number of cylinders, heads and sectors shown in setup may not be the number physically contained in the HDD.

During HDD accessing, the IDE controller will transform the logical address described by sector, head and cylinder number into its own physical address inside the HDD.

LARGE mode

Some IDE HDDs contain more than 1024 cylinder without LBA support (in some cases, users do not want LBA). The Award BIOS provides another alternative to support these kinds of HDD.

BIOS tricks DOS (or other OS) into divising the number of cylinders is less than 1024 by dividing it by 2. At the same time, the number of heads is multiplied by 2. A reverse transformation process will be made inside INT13h in order to access the right HDD address.

If using Auto detect, the BIOS will automatically detect the IDE hard disk mode and set it as one of the three modes.

Remark

To support LBA or LARGE mode of HDDs, there must be some softwares involved which are located in Award HDD Service Routine(INT13h).It may fail to access a HDD with LBA (LARGE) mode selected if you are running under an Operating System which replaces the whole INT 13h.

Video

Set this field to the type of video display card installed in your system.

EGA/ VGA	Enhanced Graphics Adapter / Video Graphic Array. For EGA, VGA, SEGA, SVGA, or PGA monitor adapters.
CGA 40	Color Graphic Adapter, powering up in 40 column mode.
CGA 80	Color Graphic Adapter, powering up in 80 column mode.
MONO	Monochrome adapter, including high resolution monochrome adapters.

Halt On

This category determines whether or not the computer will stop if an error is detected during powering up.

No errors	The system boot will not stop for any errors that may be detected.
All errors	Whenever the BIOS detects a non-fatal error, the system will stop and you will be prompted.
All, But Keyboard	The system boot will not stop for a keyboard error; but it will stop for all other errors.
All, But Diskette	The system boot will not stop for a disk error; but it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error, but it will stop for all other errors.

Memory

This is a Display-Only Category, determined by POST (Power On Self Test) of the BIOS.

Base Memory	The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.
Extended Memory	The BIOS determines how much extended memory is presented during the POST.
Total Memory	Total memory of the system equals the sum of the above memory.

CPU SpeedEasy Setup
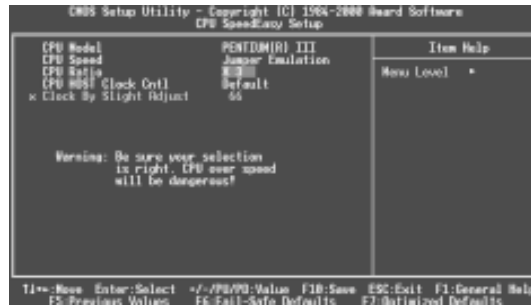
Figure-3   CPU SpeedEasy Setup Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● CPU Ratio	*x3,* *x3.5,* . . x16	Select the multiplication of processor core frequency Select the CPU speed according to your CPU brand and type. This item is only for users who understand all the CPU parameters. However the multiplier setting will not function for bus ratio locked processor, only bus ratio unlocked processor
● CPU Host Clock cntl	*Default* *Manual*	Set host clock as default Set host clock manually
● Clock by Slight Adjust	*66~166*	Adjust host clock maually: 66~99MHz/ 100~132MHz/133~166MHz as the default of CPU host clock is 66MHz/100MHz/133MHz

Warning:
Be sure your selection is right. CPU over speed will be dangerous! We will not be responsible for any damages caused.

Advanced BIOS Features Setup
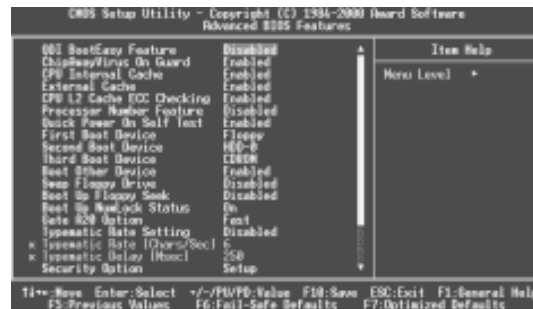
Figure-4   Advanced BIOS Features Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● QDI BootEasy Feature	*Disabled*	PC boot in the legacy BIOS way
	Enabled	PC boot in rapid speed, without any redundant waiting for the displaying of starting OS
● ChipAwayVirus On Guard	*Enabled*	Guard against boot virus threats early in the boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system
	Disabled	Disable this function
● CPU Internal Cache	*Enabled*	Enable CPU internal L1/L2 cache
	Disabled	Disable CPU internal L1/L2 cache
● External Cache	*Enabled*	Enable external L2 cache. This allows better performance
	Disabled	Disable external cache
● CPU L2 Cache ECC Checking	*Enabled*	Enable CPU L2 Cache ECC (Error Checking and Correction) function
	Disabled	Disable CPU L2 Cache ECC function

● Processor Number Feature	*Enabled*	When Pentium III CPU is installed, the serial number is readable
	Disabled	The serial number is unreadable
● Quick Power On Self Test	*Enabled*	Allow the system to skip certain tests while booting. This will decrease the time needed to boot the system
	Disabled	Normal POST
● First (Second, Third) Boot Device Boot Other Device	*Disabled* *Floppy*	Select Your Boot Device Priority. It could be Disabled, Floppy, LS/ZIP, HDD-0, HDD-1, HDD-2, HDD-3, SCSI, CDROM, LAN
● Swap Floppy Drive	*Enabled* *Disabled*	If the system has two floppy drives, choose enable to assign physical drive B to logical drive A and vice-versa
● Boot Up Floppy Seek	*Enabled* *Disabled*	Test floppy drives to determine whether they have 40 or 80 tracks
● Boot Up NumLock Status	*On* *Off*	Select power on state for NumLock
● Gate A20 Option	*Normal* *Fast*	Let chipset control GateA20 and Normal - a pin in the keyboard controller controls GateA20. Default is Fast
● Typematic Rate Setting	*Enabled* *Disabled*	Keystrokes repeat at a rate determined by the keyboard controller - when enabled, the typematic rate and typematic delay can be selected
● Typematic Rate (chars/sec)	*6-30*	The rate at which character repeats when you hold down a key
● Typematic Delay (Msec)	*250-1000*	The delay before keystrokes begin to repeat
● Security Option	*Setup* *System*	Select whether the password is required every time the system boot or only when you enter setup

|		
● OS Select For DRAM>64MB	*Non-OS2* *OS2*	Select OS2 only if you are running OS/2 operating system with more than 64MB of RAM
● HDD S.M.A.R.T. Capability	*Enabled* *Disabled*	Enable hard disk S.M.A.R.T. support Invalidate this feature
● Report NO FDD for WIN 95	*Yes* *No*	Report NO Floppy Disk Drive for WIN 95 to release IRQ6 Do not report No Floppy Disk Drive for WIN 95
● Flash Write Protect	*Enabled* *Disabled*	This option is for protecting the system BIOS, when enabled, writing to BIOS area is to be discarded
● Show Bootup Logo	*Enabled* *Disabled*	The logo will be shown automatically when system boots up, otherwise, no logo appears on the screen

Advanced Chipset Features Setup
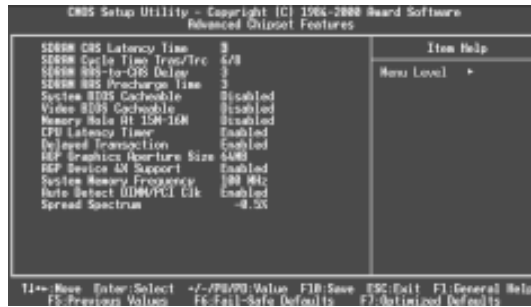
Figure-5   Advanced Chipset Features Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● SDRAM CAS Latency Time	*3* *2*	Define the CLT timing parameter of SDRAM
● SDRAM Cycle Time Tras/Trc	*5/7* *6/8*	Set DRAM Tras/Trc Cycle time is 5/7 SCLKs or 6/8 SCLKs.Tras is RAS activing time. Trc is RAS Cycle time
● SDRAM RAS-to-CAS Delay	*2* *3*	Set SDRAM RAS# to CAS# delay 3 SCLKs or 2 SCLKs
● SDRAM RAS Precharge Time	*2* *3*	Set SDRAM RAS# Percharge is 3 or 2
● System BIOS Cacheable	*Enabled* *Disabled*	Besides conventional memory, the system BIOS area is also cacheable
● Video BIOS Cacheable	*Enabled* *Disabled*	Besides conventional memory, video BIOS area is also cacheable Video BIOS area is not cacheable
● Memory hole at 15M-16M	*Enabled* *Disabled*	Memory hole at 15-16M is reserved for expanded ISA card Do not set this memory hole

● CPU Latency Timer	*Enabled* *Disabled*	Define the CPU Latency Timer
● Delayed Transaction	*Enabled* *Disabled*	Disabled is normal operation.Enabled for slow speed ISA device in system
● AGP Graphics Aperture Size	*64MB* *32MB*	Set the effective size of the Graphics Aperture to be used in the particular GART Configuration
● AGP Device 4X support	*Enabled* *Disabled*	Support AGP4X mode Not Support AGP4X mode
● System Memory Frequency	*100 MHz* *133 MHz* *Auto*	Select the System Memory Frequency, this option will be hidden if the FSB is below 133MHz
● Auto Detect DIMM/PCI Clk	*Enabled* *Disabled*	Close empty DIMM or PCI clock to reduce EMI Do not close empty DIMM or PCI clock
● Spread Spectrum	*+/-0.38%* *+/-0.25%* *-0.5%* *Disabled*	Enable Clock Spread Spectrum to reduce EMI Disable Clock Spread Spectrum to reduce EMI

Power Management Setup

Figure-6   Power Management Setup Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● ACPI Suspend Type	*S1(POS)* *S3(STR)*	Select the ACPI suspend type
● Power Management	*User Define*	Users can configure their own Power Management Timer
	Min Saving	Pre - defined timer values are used. All timers are in their MAX values
	Max Saving	Pre - defined timer values are used. All timers are in their MIN values
● Video Off Method	*Blank Screen*	The system BIOS will only blank off the screen when disabling video
	V / H SYNC + Blank	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA card to monitor
	DPMS	This function is enabled only for VGA cards supporting DPMS **Note: When the green monitor does not detect the V/H-SYNC signals, the electron gun will be turned off**

●	Video Off In Suspend	*Yes*	The system will disable video when entering suspend mode
		No	Do not turn off video when entering suspend mode
●	Suspend Type	*Stop Grant PwrOn Suspend*	Select the Suspend type
●	MODEM Use IRQ	*3, 4, 5, 7, 9 10, 11 NA*	Special wake-up event for Modem
●	Suspend Mode	*Disabled* *1Min ~ 1Hr*	The system never enters Suspend mode by timer. Defines the continuous idle time before the system enters Suspend mode. If any items defined in "PM Events" are on and activated, the system will be waken up
●	HDD Power Down	*Disabled* *1 - 15 Min*	HDD's motor will not be off by timer. Define the continuous HDD idle time before the HDD enters power saving mode (motor off)
●	Soft-Off by PWR-BTTN	*Instant-Off*	The system will immediately power off once the power button is pressed
		Delay 4 secs	The system will power off when power button is pressed for 4 seconds
●	Wake-Up by PCI card	*Enabled* *Disabled*	Allows the system to be waken up by PCI card. Does not allow the system to be powered on by PCI card
●	Wake-Up by Ring/LAN	*Enabled*	Allow the system to be powered on when a ring indicator signal comes up to UART1 or UART2 from external modem (to LAN Wake-up Header from LAN adapter or to modem Ring on Header from internal modem card)
		Disabled	Do not allow Ring/LAN wake up
●	Wake-Up From S3 by USB	*Enabled*	The system could be waked up by USB (Key board/Mouse)devices from the Suspend to RAM status
		Disabled	The system cannot be waked up by USB (Keyboard/Mouse)devices from the Suspend To RAM status

● CPU Thermal-Throttling	*12.5%, 25%, 50%, 37.5%, 62.5%, 75%, 87.5%*	Select the duty cycle of the STPCLK# signal, slowing down the CPU speed when the system enters green mode
● Resume by Alarm	*Enabled*	RTC alarm can be used to generate a wake-up event to power up the system
	Disabled	RTC has no alarm function
● Primary IDE 0/1, Secondary IDE 0/1	*Enabled*	Reload global timer, when there's an IDE event.
	Disabled	Do not reload global timer
● FDD/COM/LPT Port	*Enabled*	Reload global timer, when there's a FDD/COM/LPT event
	Disabled	Do not reload global timer
● PCI PIRQ[A - D]#	*Enabled*	Reload global timer, when there's a PCI event.
	Disabled	Do not reload global timer

PNP/PCI Configuration Setup

Figure-7   PNP/PCI Configuration Setup Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● Reset Configuration Data	Enabled	Default setting is 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 serious conflicts preventing the OS from booting
	Disabled	Disable the configuration data function
● Resources Controlled By	Auto(ESCD) Manual	BIOS can automatically configure all boot and Plug and Play compatible devices. If you choose Auto, you cannot select IRQ DMA and memory base address fields, because BIOS automatically assigns them
● PCI/VGA Palette Snoop	Disabled Enabled	Default setting Non-standard VGA cards such as graphics accelerators or MPEG video cards may not show colors properly. Enabling this item can solve this problem

Integrated Peripherals

Figure-8 Integrated Peripherals Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● On-Chip Primary/ Secondary PCI IDE	*Enabled*	On-Chip Primary/Secondary PCI IDE is enabled
	Disabled	On-Chip Primary/Secondary PCI IDE is disabled
● IDE Primary/ Secondary Master/Slave PIO	*Mode 0 - 4*	Define the IDE primary/secondary master/ slave PIO mode
	Auto	The IDE PIO mode is defined by auto -detection
● IDE Primary/ Secondary Master/Slave UDMA	*Auto*	Ultra DMA mode will be enabled if an Ultra DMA device is detected
	Disabled	Disable this function
● USB Controller	*Enabled*	Enable onchip USB controller
	Disabled	Disable onchip USB controller
● USB Keyboard Support	*Enabled*	Support USB Keyboard under legacy OS
	Disabled	Do not support USB Keyboard under legacy OS
● Init Display First	*PCI Slot*	Initialize the PCI VGA first
	AGP	Initialize the AGP first

● AC97 Audio	*Enabled*	If audio codec was installed on board, the AC97 Audio function can be used. otherwise, the function is disabled
	Disabled	Disable the AC97 Audio onboard
● AC97 Modem	*Enabled*	If modem codec was installed on board, the AC97 modem function can be used. otherwise, the function is disabled
	Disabled	Disable the AC97 Modem onboard
● Onboard/CNR LAN Selection	*Auto*	If a CNR Interface is enabled, the onboard LAN will be automatically disabled. Otherwise, the onboard LAN is enabled
	Onboard	The onboard LAN is enabled
	Disabled	CNR Interface is disabled
● IDE HDD Block Mode	*Enabled*	Allow IDE HDD to read/write several sectors at once
	Disabled	IDE HDD only reads/writes a sector once
● KBC input clock	*6/8 MHz 12/16 MHz*	Set the PS/2 Keyboard input clock as 6/8/12 /16MHz
● Power On Function	*Button only*	Power on by power button
	Password	Power on with keyboard password
● KB Power ON Password	*Enter*	Enter keyboard password
● Onboard FDC Controller	*Enabled*	Onboard floppy disk controller is enabled
	Disabled	Onboard floppy disk controller is disabled
● Onboard Serial Port 1/2	*3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3,*	Define the onboard serial port address and required interrupt number
	Auto	Onboard serial port address and IRQ are automatically assigned
	Disabled	Onboard serial port is disabled
● UART Mode Select	*Normal, IrDA ASKIR*	Set UART mode

- RxD, TxD Active *Hi, Lo/Lo, Hi*   Default is recommended
                   Lo, Lo/ Hi, Hi

- IR Transmission *Enabled*   Enable IR Transmission delay function
  Delay   *Disabled* Disable IR Transmission delay function

- Onboard Parallel *378/IRQ7*   Define parallel port address and IRQ
  Port   *278/IRQ5*
                    3BC/IRQ7
                    Disabled   Onboard parallel port is disabled

- Parallel Port Mode *SPP,EPP ,ECP* Define the parallel port mode
                     ECP+EPP

- EPP Mode Select *EPP1.7/EPP1.9* Set EPP Mode is EPP 1.7 Version or is 1.9 Version

- ECP Mode Use *3*   Set ECP Mode Use DMA is 1 or 3
  DMA   *1*

- PWRON After   *OFF,ON*   The system remains OFF/ON/Former status when
  PWR-Fail   *Former-Sts* the AC power supply resumes

- Game Port   *Disabled* This option is used to configure Game Port
  Address   *201,209*   Address

- Midi Port Address *Disabled*   This option is used to configure Midi Port
                     300,330,290   Address

- Midi Port IRQ *5*   This option is used to configure Midi Port
                 10   IRQ

PC Health Status

Figure-9 PC Health Status Menu

The following indicates the options for each item and describes their meaning.

Item	Option	Description
● CPU Warning Temperature	$50^0C/122^0F$ $53^0C/127^0F$ $56^0C/133^0F$ $60^0C/140^0F$ $63^0C/145^0F$ $66^0C/151^0F$ $70^0C/158^0F$ $75^0C/167^0F$ $80^0C/176^0F$ $85^0C/185^0F$ $90^0C/194^0F$ $95^0C/205^0F$	An alarm will beep when the CPU temperature reaches the previous setting, $50^0C/122^0F$, $53^0C/127^0F$, $56^0C/133^0F$, $60^0C/140^0F$, $63^0C/145^0F$, $66^0C/151^0F$, $70^0C/158^0F$. $75^0C/167^0F$, $80^0C/176^0F$, $85^0C/185^0F$, $90^0C/194^0F$, $95^0C/205^0F$
	Disabled	No alarm beep
● Current System Temp.		The temperature inside the chassis
● Current CPU Temperature		The temperature of CPU

● Current CHSFAN
Speed
Current CPUFAN
Speed
Current PWRFAN
Speed

RPM (Revolution Per Minute) Speed of fan which is connected to the fan header, CHSFAN, CPUFAN or PWRFAN. Fan speed value is based on an assumption that tachometer signal is two pulses per revolution. In other cases, you should regard it relatively

● VCCVID(CPU)
Voltage,
VTT(+1.5V)
Voltage,
+3.3V,
+5 V,
+12 V,
-12 V,
VBAT Voltage
5V Standby Voltage

Display current voltage value including all significant voltages of the mainboard. +3.3V, +5V, +12V, -12V are voltages from the ATX power supply, VTT(+1.5) Voltage is GTL Termination voltage from the on board regulator and VCCVID (CPU) Voltage is the CPU core voltage from the on board switching Power Supply. The VBAT Voltage is the voltage of battery

● Shutdown
Temperature

$60^0C/140^0F$
$65^0C/149^0F$
$70^0C/158^0F$
$75^0C/167^0F$
$80^0C/176^0F$
$85^0C/185^0F$
$90^0C/194^0F$
$95^0C/205^0F$

The system will shut down automatically under the ACPI OS when the CPU temperature reaches the previous setting, $60^0C/140^0F$, $65^0C/149^0F$, $70^0C/158^0F$, $75^0C/167^0F$, $80^0C/176^0F$, $85^0C/185^0F$, $90^0C/194^0F$, $95^0C/205^0F$

Disabled

The system remains on regardless of how much the CPU temperature is

Password Setting

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

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

PASSWORD DISABLED

If you have selected "**System**" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup.

If you have selected "**Setup**" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

Boot with BIOS defaults

If you have made all the changes to CMOS values and the system can not boot with the CMOS values selected in setup, clear CMOS after power-down, then power on again. System will boot with BIOS default settings.

Appendix A
QDI Utility CD

A QDI Utility CD is supplied with this mainboard, the contents contained in it are showed as below:

1. Driver Install
Using this choice, you can install all the drivers for your mainboard easily. You should install the drivers in order, and you need to restart your computer until all the drivers are installed.

A.　Chipset software　　　　B.　Network Driver
C.　Audio Driver　　　　　　D.　MIDI Driver
E.　DirectX

2. Accessory

A.　QDI ManageEasy　　　　B.　QDI StepEasy
C.　Norton AntiVirus

3. Browse CD
You could read all the contents contained in this CD, including Utility and Documents.

The files included in **Utility** are:
A.　Awdflash.exe　　　　　B.　Cblogo.exe
C.　Lf.exe

The files included in **Documents** are:
A.　Adobe Acrobat Reader V3.0 - Ar32e301.exe
B.　RecoveryEasy-FR.doc, SX1FR.doc, SX1E FR.doc, SX1EP FR.doc,SX2EP FR.doc, SX2E FR.doc, SX5EP/5EI FR.doc, Handbuch-manageEasy,etc.

Appendix B
Boot Logo

When you power on or reset your system, the picture shown below will be displayed on the screen.

You can use "**CBLOGO.EXE**" (included on the QDI Mainboard Utility CD) to replace it by any other logo which you prefer.

Please you follow these steps to use CBLOGO.EXE Utility:

1. Copy "CBLOGO.EXE"and "AWDFLASH.EXE" from the directory \Utility located on QDI Mainboard Utility CD onto your hard disk.

2. Get the BIOS file from "AWDFLASH.EXE" or Download the BIOS file from the Website (http://www.qdigrp.com). and copy the BIOS file(xxxxxx.bin) onto your hard disk.

3. Boot the system into DOS environment, Put your favourite picture into BIOS file by "CBLOGO.EXE" command. For example: CBLOGO.EXE xxxxxx.bin myphoto.bmp

4. Flash the BIOS into mainboard by "AWDFLASH.EXE". For example: AWDFLASH xxxxxx.bin

Reboot the system, you can see the new picture displayed on the screen. If you require more parameters information concerning "CBLOGO.EXE". Please refer to it's online help. If you don't prefer the logo displayed on the screen during boot up, set the "Show Bootup Logo" option as Disabled in the "BIOS FEATURES SETUP" section of the BIOS.

* We reserve the right of modifying the default full-logo of QDI without further notification.

QDI StepEasy

As one of the Legend QDI's innovations, StepEasy is a powerful and efficient Easy Technology for PC DIY fans. It provides a friendly interface for you that you can adjust the CPU frequency conveniently and directly. It is so powerful that you can change the CPU frequency just in a few seconds under the operating system and have no need to reset the PC or change the jumpers. In addition, StepEasy can decrease the risk of changing the CPU frequency to minimum. As long as you conform to the steps of tuning the CPU frequency, there is almost no risk to adjust the frequency.
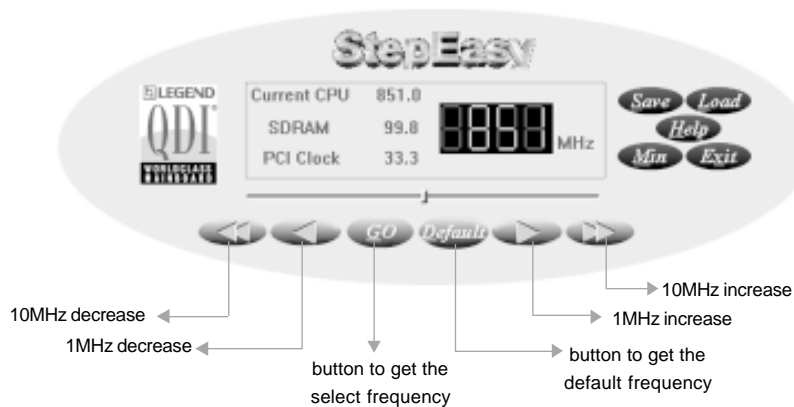
Installation

You can install the QDI StepEasy by the following two means:

1. Run CD, select the installation of QDI StepEasy, then, act step by step according to the interface prompt.

2. Browse CD and run the setup.exe in the relative directory.

Instruction

Because there exist some risks for the CPU or the motherboard when you change the CPU frequency, please read the following and refer to the figure above carefully before tuning the CPU frequency.

The selected CPU frequency is shown in the LED window with three colors: green digits indicate the frequency is entirely safe, yellow digits indicate the frequency is relatively safe, and red flashing digits indicate the frequency is somehow dangerous that may lead the system down. We recommend you not to select the Red Flashing Value to run.

To avoid accident, we recommend you to save your program before run StepEasy.

1. You can click on the 1MHz increase (decrease) or 10MHz increase (decrease) button to set your wanted frequency, then click on the "GO" button to get the selected frequency.

2. Also, you can drag the slider to the wanted frequency, then click on the "GO" button to get the selected frequency.

3. You can click on the "Default" button, then click on the "GO" button to get the default frequency.

4. StepEasy enables you to save the successful CPU tune frequency for later use. If you want to save the current frequency, click on the "Save" button to realize it.

5. When click on the "Load" button, the saved CPU frequency is obtained immediately.

6. When click on the "Min" button, the utility will minimize to an icon in the right-bottom task tray. Whenever click on the QSE(QDI StepEasy) icon in the task tray, the utility will be activated in the current window.

Note:

1. QDI StepEasy can only support the QDI motherboard with the clock chip that supports StepEasy.

2. The performance of StepEasy is related to the CPU, SDRAM, peripheral equipments and the software running.

3. There exist some risks to change the CPU frequency for the CPU or motherboard. StepEasy can decrease the risks to minimum. But Legend QDI will not be responsible for any damages caused.

QDI BootEasy

BootEasy is a new member of legend QDI Easy series, which is the latest innovation comes from legend QDI.
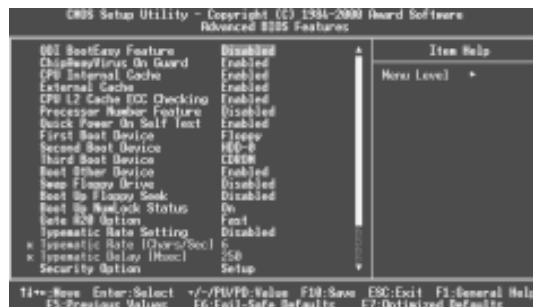
BootEasy Setup Menu

BootEasy technology enormously improves the long BOOT process time of computers. Reducing the wait time every user has to suffer when starting their computer. BIOS without BootEasy has to perform many routines every times when the system starts, such as checking system core of the computer and initializing system peripherals.   Now with the BootEasy, BIOS will not run these repetitive Processes any longer , PC can boot-up without any redundant waiting for the displaying of starting OS. BootEasy is quite easy to use , choose the right option in CMOS SETUP, (refer to Advanced BIOS Features) it can be easily booted quickly. BootEasy save all the information when PC first normally boot-up, and it restores all the parameters for the system and thus let the PC boot freely and rapidly.

Note:
1. Under the following conditions, PC will boot-up in normal way.
   (1) PC boot-up for the first time after set option as Enabled.
   (2) the system information saved by BIOS was damaged.
   (3) PC fail to boot-up continually over three times.
2. Don't power off or reset system while BootEasy initializing.
3. set "QDI BootEasy Feature" as "Disabled" before you replace system equipment.
   set "QDI BootEasy Feature" as "Enabled" after you accomplished replacing.

QDI BootEasy

Boot Easy e il nuovo software membro della famiglia legend QDI Easy, quale innovazione da LEGEND-QDI.
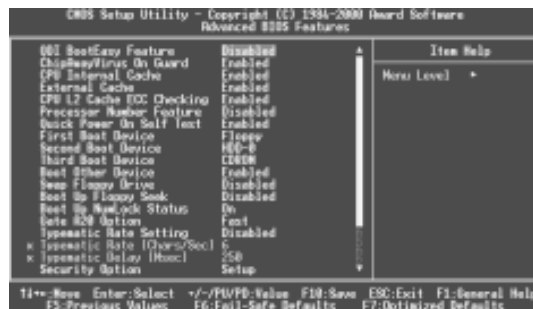
BootEasy Setup Menu

La tecnologia Boot Easy abbrevia gli enormi tempi del computer in fase di BOOT.

Riduce le attese d'ogni utente che accede al suo computer. Il BIOS senza Boot Easy deve eseguire molte routines ogni qualvolta il sistema parte, come controllo della sezione centrale del computer oltre che inizializare le varie periferiche esterne.

Ora con Boot Easy, il BIOS non eseguirà questi processi ripetitivi cosi lunghi , il Pc potrà partire senza attese ridondanti prima della presentazione del logo del sistema operativo.

Boot Easy e' facile da usare, basta scegliere la giusta opzione nel BIOS setup, (riferito al Advanced BIOS Features) ed il computer potrà velocemente ripartire.

Boot Easy salva tutte le informazioni al primo avvio normale, tutti i parametri saranno restituiti ai BOOT successivi

Nota:

1 Il Pc partira' normalmente se saranno rispettate le seguenti condizioni

(1) Il Pc fa' il primo BOOT con l'opzione Enable

(2) Le informazioni su i parametri salvati dal BIOS non erano DANNEGIATE

(3)Il PC fallisce l'avvio piu' di tre volte

Non spegnere o resetta il PC durante l'avvio di BOOT EASY

Disabilita il "QDI BootEasy Feature" prima di sostituire le periferiche ad esso collegate (HDD, CD-ROM, ecc.) solo dopo riabilita il "QDI BootEasy Feature".

QDI BootEasy

BootEasy es el nuevo miembro de la familia de "Easies" de Legend QDI , que se acaba de incorporar a los últimos modelos de placas base.
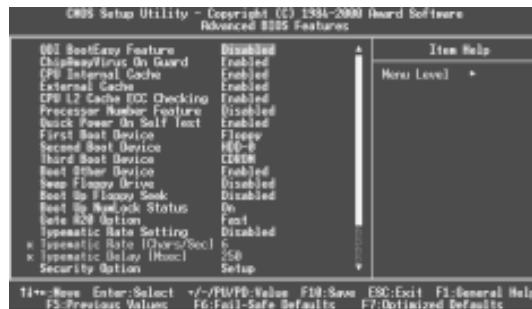
Menu de configuración de BootEasy

La tecnología BootEasy disminuye enormemente el tiempo dedicado al proceso de arranque del ordenador, reduciendo considerablemente el tiempo de espera que tiene que sufrir el usuario al arrancar su PC. Las BIOS normales, sin BootEasy, deben realizar multitud de rutinas repetitivas cada vez que el sistema se arranca, como verificar el "core" del sistema e inicializar periféricos. Ahora, con BootEasy, su BIOS no realizará estas tareas repetitivas nunca más, su PC podrá arrancar sin ninguna necesidad de repetir estas tareas antes de mostrar la pantalla de arranque de su sistema operativo. BootEasy es muy simple de utilizar, basta con escoger la opción correcta en CMOS SETUP, (refiérase al apartado Advanced BIOS Features); Así, conseguirá arrancar su sistema rápidamente. BootEasy guardará toda la información durante el primer arranque correcto, y, la próxima vez que arranque, restaurará esta información para permitir al sistema un arranque rápido y fiable.

Nota:

1. Bajo estas circunstancias, el PC arrancará en modo normal:
   (1) La primera vez que arranque su PC después de haber activado la opción BootEasy en BIOS ("Enabled").
   (2) La información guardada en BIOS es incorrecta.
   (3) El arranque de su PC falla por tres veces consecutivas.
2. No apague su ordenador mientras se inicia BootEasy.
3. Desactive "QDI BootEasy Feature" seleccionándolo como "Disabled" antes de cambiar algún componente de su PC. Puede restaurar la opción "QDI BootEasy Feature" como "Enabled" al terminar la instalación de nuevos componentes.

QDI BootEasy

BootEasy ist eine Neuentwicklung von Legend QDI, die neue Innovation der QDI Easy – Technologien.
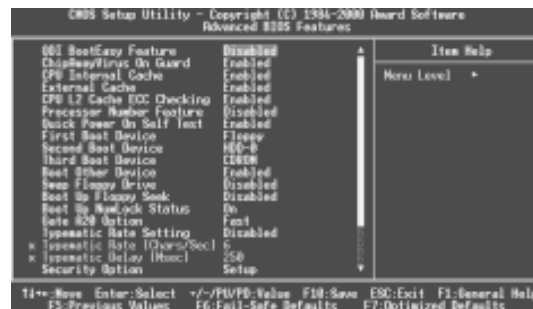
BootEasy Setup Menu

Mit der BootEasy- Technologie Technik wird der Bootvorgang nur noch vier bis fünf Sekunden in Anspruch nehmen, bis das Betriebssystem geladen wird. Der Grund für die lange Warterei liegt in den Routine-Abfragen, die das BIOS bei jedem Start abarbeitet. So wird beispielsweise jedes Mal die Taktfrequenz des Prozessors geprüft oder angeschlossene Geräte aktiviert.

Die BootEasy-Technik prüft diese Punkte nur beim erstmaligen Start des Rechners und speichert die Ergebnisse in einem Flash ROM. Beim nächsten Start ruft das System lediglich diese Informationen aus dem Speicher ab und kann so innerhalb von wenigen Sekunden den Boot-Prozess abschließen.

Bei Änderungen am System, beispielsweise nach dem Einbau eines neuen Prozessors, muss deshalb zuvor die BootEasy-Funktion deaktiviert werden, beim nächsten Start werden die neuen Informationen dann erneut abgespeichert.

Falls Fehler im Flash ROM den Bootvorgang behindern, versucht das System drei Mal den Rechner hochzufahren, bei Misserfolg schaltet es auf die althergebrachte Art zu booten um, das heißt, es dauert wieder ebenso lang wie früher. Anschließend kann die BootEasy – Technik wieder aktiviert werden.

SpeedEasy Quick Setup

Procedures :

1. Correctly insert the Intel® Pentium III FC-PGA, Celeron FC-PGA or Tualatin FC-PGA2 processors.

2. Plug in other configurations and restore the system.

3. Switch on power to the system and press the <Del> key to enter BIOS Setup.

4. Enter "CPU SpeedEasy Setup" menu to set up the CPU speed.

5. Save and exit BIOS Setup, your system will now boot successfully.

CPU SpeedEasy Setup Menu

Select <CPU SpeedEasy Setup> item from the main menu and enter the sub-menu:
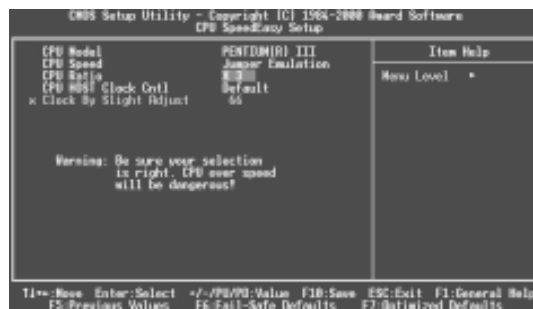
Figure - 1 CPU SpeedEasy Setup Menu

BIOS provides you with a set of basic values for your processor selection instead of the jumper settings. The processor speed can be manually selected on the "CPU SpeedEasy SETUP" menu screen.

⚠ **Warning:**

 Do not set CPU frequency higher than its working frequency. If you do, we will not be responsible for any damages caused.

BIOS_ProtectEasy

The BIOS of the mainboard is contained inside the Flash ROM. Severe viruses such as CIH virus are so dangerous that it may overwrite the BIOS of the mainboard. If the BIOS has been damaged, the system will be unable to boot. We provide the following solution which protects the system BIOS from being attacked by such viruses.

There are two choices which implements this function.
1. Set the jumper (JAV) as closed, the BIOS can not be overwritten.
2. Set the jumper (JAV) as opened, meanwhile set "Flash Write Protect" as Enabled in Advanced BIOS Features Setup. In this way, the BIOS can not be overwritten, but the DMI information can be updated.

Norton AntiVirus

When you install Norton AntiVirus and accept options, your computer is safe. Norton AntiVirus automatically checks boot records for viruses at system startup, Checks programs for viruses at the time you use them, scans all local hard drives for viruses once per week, and monitors your computer for any activity that might indicate the work of a virus in action. It also scans files you download from the internet and checks floppy disks for boot viruses when you use them.

The list below shows the most important tasks Norton AntiVirus helps you perform:Scan for viruses on your computer;Remove viruses from your computer;Update your virus protection with LiveUpdate;Quarantine an infected file. you can go to the Symantec Web site to view an online tutorial:

http://www.symantec.com/techsupp/tutorial/nav2001

ManageEasy

It is well known that guaranteeing the computer's security and reliability is essential. Especially today, effectively managing and monitoring the computer's hardware is even more important; because processing and exchanging critical data through computer and network are happening everyday. Moving with the computer's development, the system of the computer will become more and more complex; at the same time, the control of computer's hardware will be strengthened. Today, it is possible to monitor and manage your complex hardware from Windows 9X and Windows NT.

QDI ManageEasy is a system tool, like a bridge between the complex hardware and OS, used to access hardware status and to execute some control functions. It supports stronger functions for Windows 9X and Windows NT. These functions enables you to view more than one hundred of the basic information about your computer and monitor some key reference data about computer health in real time. QDI ManageEasy also helps you to use remote access and control computers in your local area network. With QDI ManageEasy, you can improve your management level.

RecoveryEasy

Introduction:

RecoveryEasy™, one of QDI innovation, is able to protect the system from being destroyed, by creating a so-called "mirror partition" for a current hard disk partition and backuping all the data to the mirror area. This ideal utility provides disk partition, disk data backup/recovery, CMOS settings backup/recovery and multi-boot functions. RecoveryEasy is also able to prevent the system from being attacked by different kinds of boot virus or other severe virus such as CIH. In case the system is ruined either by mistake or virus, the system can be recovered from the mirror partition. It applies the build-in BIOS technology that does not occupy either the hard disk space or the system memory. It's the best choice for both corporations and PC users.

Operation Process:

There are two hotkeys – Ctrl+Bksp and F12 for RecoveryEasy to enter "Partition" and "Recovery" user interfaces accordingly during BIOS booting up. If two or more hard disks are installed, use F5 key to choose the hard disk.

1.   Partition Interface (see figure-1)

Users can create and delete partitions/mirror partitions, activate partitions, and uninstall RecoveryEasy in Partition User Interface.
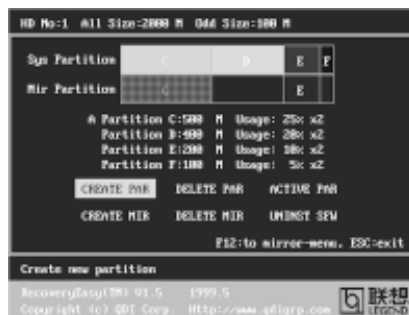
figure-1 Partition Interface

1.0   Install RecoveryEasy for the first time

a. The utility checks the previous disk partition at first, and displays the status of the first four partitions. If there are more than four disk partitions, users will be asked to delete the redundant disk partitions, since only four partitions that can be activated are allowed to exist. However, if there're only four or fewer partitions, users can follow the system prompt and choose to install RecoveryEasy based on the previous disk partitions. In this way, the original extension partitions will be changed to normal ones, and probably the sequence of the partitions will be changed also, but the contents contained in each partition will remain the same.

b. If choosing to install RecoveryEasy on an absolutely clear disk, the utility will delete all the previous partitions.

c. The password is set as default setting "qdiqdi" after installing RecoveryEasy.

1.1 CREATE PAR

Function : Creates a new partition.

Limitation : When no disk space remains or 4 partitions already exist, this button is disabled.

Steps : After pressing the "CREATE PAR" button.

a. The system will prompt whether users want to create a mirror partition for it or not.

b. If answering "Y", input the new partition size in Megabyte. Notice that the maximum partition size that can be assigned is half of the left disk space, which is also displayed in the status line. Another half is for the mirror partition. If answering "N", the whole disk space left can be assigned. See figure-2.
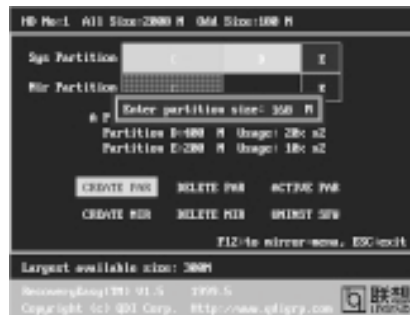
figure-2 Create Partition

Note:

a. The system will prompt "Insert system floppy, then reset" when the first partition on the first hard disk is created.

b. After using DOS6.xx boot disk to format C partition, the system should be reset in order to access the partition.

c. In Windows system 1,048,576 bytes equal 1 Megabyte, while in RecoveryEasy 1,000,000 bytes equal 1 Megabyte, therefore a smaller size will be displayed in Windows system compared with the size displayed in RecoveryEasy.

1.2 DELETE PAR

Function : Deletes the last partition and its mirror partition.

Limitation : When no partition exists, this button is disabled.

Steps : After choosing this function, only the final partition can be deleted in order to keep the continuous disk space. If the warning message is confirmed, the partition will be deleted. By pressing "N" or "ESC" key, the system quits.

1.3 ACTIVE PAR

Function **:** Implements multi-boot function by activating one of the partitions.

Limitation : When no partition exists, this button is disabled.

Steps **:** If there're two or more partitions, choose one of them by pressing F5 key.

Note **:** After setting active partition, a letter "A" will be shown in front of this partition.

1.4 CREATE MIR

Function **:** Adds mirror partition for the disk partition that has no mirror.

Limitation : This function should be performed by order, for example, from partition 1 to 4. If no disk space remains or the last partition has its mirror partition already, this button is disabled.

Steps **:** After pressing the "CREATE MIR" button, use F5 key to choose the partition to create mirror. The partition of which the size is bigger than the left disk space will be ignored.

1.5 DELETE MIR

Function **:** Deletes the mirror partition.

Limitation : If there is no mirror partition, this button is disabled. This function should be performed in reverse order, for example, from partition 4 to 1.

Steps **:** After pressing the "DELETE MIR" button, only the final mirror partition can be deleted in order to keep the continuous disk space. If the warning message is confirmed, the mirror partition will be deleted. By pressing "N" or "ESC" key, the system quits.

1.6 UNINST SFW

Function **:** Uninstall RecoveryEasy.

Limitation : None.

Steps **:** After pressing the "UNINST SFW" button and the warning message is confirmed, RecoveryEasy will be uninstalled. By answering "N", the system quits.

Note **:** After RecoveryEasy is uninstalled, all the mirror areas have been disconnected with the relate partitions. If no partition is deleted or changed in size, or no other partition is created, users have chance to "Recover existing RecoveryEasy settings" when next time entering RecoveryEasy partition interface, meanwhile the password will be set as default setting "qdiqdi".

1.7 OTHERS

F12 **:** Switches to Recovery User Interface.

ESC **:** Exits from the Partition User Interface. If users made some mistakes, for example, wrongly delete a partition, do not press the "ESC" key, press the reset button on your system at once, in this way users can save their system.

F5:

a. When two or more than two hard disks are installed on the system, use F5 key to choose the hard disk. Every time users use F5 key to switch the hard disk, the operation result for the previous hard disk is saved. When processing a certain hard disk, F5 key can be used to choose the partition.

b. In addition, when two or more than two hard disks are installed, the sign of partitions will be changed from C, D, E, F to 1, 2, 3, 4 accordingly.

2. Recovery Interface (see figure-3)

Users can backup the partition to its mirror area, and recover the partition from its mirror area from Recovery User Interface. This interface also provides users with CMOS settings backup or recovery, and changing password functions.
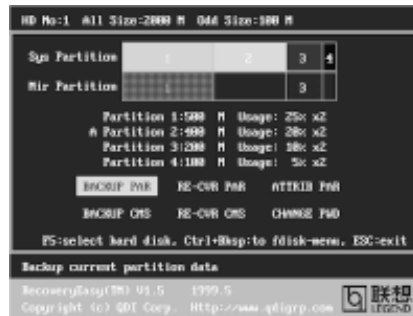
figure-3 Recovery User Interface

2.1 BACKUP PAR

Function : Backups the content of the partition to its mirror area.
Limitation: If no mirror partition exists, this button is disabled.
Steps:

a. Use F5 key to choose the partition with mirror area existed.

b. If the partition chosen has been backuped before, a warning message will be shown, and the time when last backup was done will be displayed in the status line. After confirming the warning message, the system performs the backup. By pressing "N" or "ESC" key, the system quits.

2.2 RE-CVR PAR

Function : Recovers the content from the mirror area to the relate partition.
Limitation: If users didn't backup any partitions before, this button is disabled.
Steps:

a. Use F5 key to choose the backuped partition.

b. The time when the latest backup was done will be displayed in the status line. After confirming the warning message, the system performs the content recovery. By pressing "N" or "ESC" key, the system quits.

Note:

a. During the process of partition backup or recovery, a guage will be shown as below, the backup or recovery speed is about 4-5Mbyte/s. See figure-4.
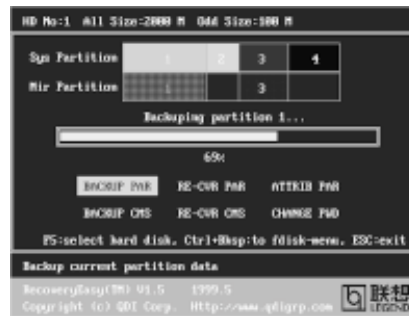
figure-4 Backup Partition

b. If a disk I/O error occurs during the process of partition backup or recovery, this means there's physical damage on the hard disk, however users can ignore it and continue the process.

2.3 ATTRIB PAR

Function : Allows users to modify the properties of the partition (eg. FAT16 -> FAT32) after entering OS.

Limitation : None.

Steps : After pressing this button, turn on/off the switch.

Note:

a. The switch resets to the default setting "disable" every time the system reboots.

b. In order to implement this function, users need to enable the switch when installing the OS or modifying the partition properties. Please note: Do not create or delete partitions or change the partition size when modifying the partition properties.

2.4 BACKUP CMS

Function : Backups all CMOS settings.

Limitation : None.

Steps : After choosing this function, the current CMOS settings will be saved.

2.5 RE-CVR CMS

Function : Recovers all CMOS settings.

Limitation : None.

Steps : After choosing this function, the latest backup of the CMOS settings will be recovered. The system needs reboot in order to validate the new CMOS settings.

Note : If users have never backuped the CMOS settings, a wrong message will be shown after choosing this function.

2.6 CHANGE PWD

Function   **:** Changes the password to enter RecoveryEasy Partition or Recovery
User Interface.

Limitation **:** None.

Steps   **:** Follow the system prompt, input the password no more than 6
characters twice. To delete the password, follow the system prompt
and press the "Enter" key twice.

Note:

a. The password should be no more than 6 characters, only digital and alphabetic
letters are valid.

b. Once the password is enabled, users will be asked to input the password every
time they try to enter the RecoveryEasy user interfaces, and up to 3 times try is
permitted.

2.7 Others

Ctrl+Bksp : Switches to Partition User Interface.

ESC   **:** Exits from the Partition User Interface.

F5   **:** When two or more than two hard disks are installed on the system,
use F5 key to choose the hard disk. When processing a certain hard
disk, F5 key can be used to choose the partition.

FAQ:

1. **What does RecoveryEasy do?**
RecoveryEasy creates a so-called "mirror partition" with same size for the
hard disk partition on the same hard disk, and then completely backups all the
data sector by sector to the mirror area. This mirror partition is reserved to
OS. When the OS ruins either by mistakes or virus, users can recover the
partition from its mirror.

2. **Does RecoveryEasy occupy the system resources?**
Although some hard disk data protection applications can automatically
protect the disk data in runtime, it lowers the system performance. Unlike
these applications, RecoveryEasy need users to backup or restore data
manually when needed, but it DOES NOT lower the system performance
when the system is running. It does not occupy either hard disk space or
system memory, additional floppy disk or ISA/PCI cards are unnecessary.

3. **RecoveryEasy utilizes Build-in BIOS skill, what is build-in BIOS?**
RecoveryEasy build-in BIOS means all functions of RecoveryEasy including
creating partition, backuping and restoring partition are built in BIOS. Users just
need to down load the latest BIOS from our Website (http://www.qdigrp.com)
when wanting to upgrade (It's free!).

4. **Are there any hard disk limitations of RecoveryEasy?**

RecoveryEasy supports all kinds of current IDE hard disks and has no limitation on the hard disk capacity. RecoveryEasy can not provide its function for some special hard disk types such as SCSI, but it will not affect their usage.

5. **Are there any OS limitations of RecoveryEasy?**

RecoveryEasy supports current operating systems such as DOS, Windows 95/98. However in Windows NT, Windows 2000, Unix and OS2 systems, users should notice that the disk tools bundled in the OS could change the mirror partition. On the other hand, since users can create partition with RecoveryEasy, it is unnecessary to use other disk tools.

6. **Why does the remainder size plus partitions size not match the total size shown in RecoveryEasy sometimes?**

When the location of partitions is not continuous, the above problem exists.

7. **Are there any other disk partition tools that can modify the partition table made by RecoveryEasy?**

RecoveryEasy provides a write-protect function, so the disk tools such as Fdisk, Partition Magic, BootMenu, SmartDisk and BootStar can not modify the partition table created by RecoveryEasy. Some of the applications even terminate during operation. However the disk tools bundled in the OS such as Windows NT, Windows 2000, Unix and OS2 could change the mirror partition.

8. **Why does it happen that a prompt "*installation can not continue*" pops up when installing Windows98 or a yellow exclamation mark shown beside IDE device in system properties?**

During Windows 98 installation, the installation program will write to MBR (Master Boot Record) which is protected by RecoveryEasy, therefore the installation will be terminated. To avoid this problem, a "ATTRIB PAR" button is provided in Recovery User Interface. Enable this switch before installing Windows 98, then the installation will be successfully completed. In order to remove the yellow question mark before IDE devices in Device Manager, enable this switch once more after system reboot.

9. **Why does the converting of FAT16->FAT32 in PQ Magic go wrong?**

MBR will be accessed when converting FAT16 to FAT32 with PQ Magic, which is protected by RecoveryEasy, therefore the conversion will be invalidate. Enabling the " ATTRIB PAR" switch from Recovery User Interface before converting can avoid this problem. It's the same situation as "FAT32 Converter" provided in Windows98.

10. **What if partitions be wrongly deleted in RecoveryEasy?**

If users delete a partition in RecoveryEasy by mistake, they can save it by pressing the Reset button on their system at once. Do not press the "ESC"

key to quit RecoveryEasy, this will save the change. Do not try to create the partition again, since creating partition will clear all the content of the partition.

11. What is multi-boot?

RecoveryEasy can implement the multi-boot function by activating different partition. For example on the hard disk, partition C contains DOS, partition D contains Windows 95 version, partition E contains Windows 98 version, when activating partition C in RecoveryEasy, the system enters DOS, when activating partition E, the system enters Windows 98 version. At the same time, the sequence of the partitions is adjusted accordingly, partition E becomes C:, partition C becomes D: and partition D becomes E:. This function is the same as that of fdisk.exe, but the system needs reboot in order to make the change validate for fdisk.exe.

12. What if computer accidentally power off when backuping (recovering)?

The partition should be completely backuped or recovered. If the computer accidentally powers off, the partition should be backuped or recovered once again.

13. What if users lose the password?

To make sure the security, the password is saved in the hard disk. **It's very important for users to remember the password.** If forgetting the password, contact us, clearing CMOS is useless.

14. Does RecoveryEasy protect hard disk against CIH?

RecoveryEasy can strongly protect the hard disk from boot-virus, as well as the attack of CIH. If the system is attacked by CIH, RecoveryEasy will automatically recover the MBR and each partition boot record before system boots up, and try to recover the FAT. In this way the system can basically boot up, then users can use some anti-virus application to kill the virus. However this depends on how CIH virus affects the system. CIH normally outbreaks on 26th every month, if the system cannot boot up that day, power off the computer instantly, and use the second safe way to recover the system, that is, recover the partition from its mirror area from Recovery User Interface. Remember to create a mirror partition and backup before virus attacks the system.

Installation de la carte mère SynactiX 5EP/5EI

1. Assurez-vous que votre ensemble est complet: carte mère, câbles IDE et Floppy, notice d'utilisation et CD-ROM d'installation.
2. Vérifiez que l'alimentation est débranchée et reliez-vous à la terre par une courroie à votre poignet. A défaut, maintenez le contact de vos deux mains avec un objet lui-même relié à la terre, ou une partie en métal du système.
3. Fixez la carte mère dans le boîtier grâce aux vis fournies avec celui-ci.
4. Si votre carte mère est munie de cavaliers, placez les en fonction des options que vous souhaitez utiliser: réglage de la fréquence du processeur si votre carte n'est pas SpeedEasy, fonction allumage par saisie du mot de passe…(voir le manuel, rubrique «configuration des cavaliers» pages 16 à 19)
5. Insérez le processeur dans son logement avec son ventilateur que vous brancherez au connecteur «CPUFAN».
6. Insérez la/les barrette(s) de mémoire dans les slots DIMM.
7. Installez vos éventuelles cartes PCI et AMR dans les slots prévus à cet effet (voir page centrale du manuel).
8. Branchez vos périphériques IDE et FLOPPY sur les connecteurs prévus à cet effet grâce aux nappes fournies avec la carte. Vérifiez que le sens de branchement est correct (liseré rouge du câble sur la broche 1 du connecteur).
9. Reliez les câbles du boîtier aux connecteurs prévus à cet effet (Connecteur d'alimentation, LED de marche/arrêt, disque dur, haut-parleur…voir manuel pages 11 à 15). Refermez le boîtier.
10. Branchez les périphériques externes sur les sorties du fond de panier: clavier, souris PS/2, périphériques USB, moniteur, imprimante…(voir manuel pages 9-10)
11. Lorsque tous les éléments du système sont installés physiquement, rebranchez l'unité centrale.

Installation du système.

1. Démarrez votre système en pressant le bouton «POWER».
2. Pressez la touche «Suppr» pour entrer dans le setup du BIOS.

3. Dans le menu "SpeedEasy CPU Setup", réglez la vitesse de votre processeur (ATTENTION: il est recommandé de ne pas sélectionner une fréquence supérieure à celle de votre processeur, nous déclinons toute responsabilité pour les dommages qui en résulteraient)

4. Effectuez les autres réglages du BIOS selon votre configuration (nous vous conseillons fortement de maintenir les réglages par défaut afin d'éviter toute manipulation hasardeuse pouvant résulter en un dysfonctionnement). Pour plus d'informations sur les fonctions du BIOS, vous pouvez consulter la version française du manuel sur le CD-ROM.

5. Pressez la touche F10 ou choisissez «Save and exit» pour enregistrer vos paramètres et relancer la machine.

6. Installez votre système d'exploitation

7. Après installation, assurez-vous qu'il ne subsiste aucun conflit ou périphérique inconnu dans votre système.

8. Installation des pilotes:

➢ Logiciel Demo Shield
    Un logiciel qui vous apporte une nouvelle interface plus conviviale et aisée

➢ Point-and-Click
    Placez simplement la souris sur l'option que vous désirez et cliquez , le pilote ou le logiciel dont vous avez besoin s'installe automatiquement.

➢ Intelligently Recognition
    Reconnaissance automatique du matériel et installation des pilotes nécessaires

Express Install

Il est recommandé d'installer les programmes avec les options communes.

A. Intel INF
B. Pilote réseau
C. Pilote audio

QDI StepEasy

StepEasy offre une interface conviviale pour ajuster la fréquence du CPU de
manière aisée. Vous pouvez modifier la fréquence du CPU depuis votre système
d'exploitation sans avoir à redémarrer votre PC ou déplacer des cavaliers.
De plus, StepEasy réduit les risques de changement de fréquence CPU au minimum,
tant que vous vous conformez aux étapes du StepEasy, il n'y a pratiquement aucun
risque pour votre système.

Installation et utilisation

Vous pouvez installer le StepEasy de la manière suivante:
1.   Lancez le CD2000, choisissez l'installation du StepEasy et suivez les étapes.
2.   Naviguez sur le CD2000 et lancez le setup.exe dans le répertoire correspondant.

Parce qu'il y a des risques à modifier la fréquence du CPU, merci de lire
attentivement ce qui suit avant de régler la fréquence du CPU.
La fréquence du CPU est indiquée dans la fenêtre LED du StepEasy en trois
couleurs: les chiffres verts indiquent que la fréquence est totalement sûre, les
chiffres jaunes indiquent que la fréquence est relativement sûre et les chiffres
rouges clignotants indiquent que la fréquence peut être dangereuse et risque
d'endommager le système. Il est déconseillé de choisir une fréquence rouge
clignotante.

1.   Vous pouvez cliquer sur les boutons d'augmentations/réductions de 1MHz ou
      10MHZ pour ajuster la fréquence, puis cliquer sur le bouton «GO»
2.   Vous pouvez également faire glisser le curseur jusqu'à la fréquence désirée et
      cliquer sur le bouton «GO» pour appliquer cette fréquence.
3.   Vous pouvez cliquer sur le bouton «Default» et cliquer sur le bouton «GO»
      pour obtenir la fréquence par défaut.
4.   StepEasy vous permet de sauvegarder une fréquence réglée préalablement
      pour un usage ultérieur. Si vous souhaitez sauvegarder la fréquence courante,
      cliquez sur le bouton «Save».
5.   En cliquant sur le bouton «Load», la fréquence sauvegardée est alors obtenue.
6.   En cliquant sur le bouton «Min», l'utilitaire sera minimisé en icône dans la barre
      des tâches. Si vous cliquez sur l'icône QSE dans la barre des tâches, l'utilitaire

l'utilitaire sera réactivé sous forme de fenêtre.

Note:

1. QDI StepEasy peut uniquement supporter les cartes mères QDI avec un clock chip supportant le StepEasy.

2. Il y a des risques pour le CPU et la carte mère à changer la fréquence de CPU. StepEasy permet de réduire ces risques au minimum, mais Legend QDI ne saurait être responsable des éventuels dommages causés.

QDI BootEasy

Voir figure 1 page S.1 du manuel en anglais.

BootEasy permet au PC de démarrer plus rapidement lorsqu'on allume, reset ou relance le PC.

BootEasy est facile à utiliser, il suffit de choisir l'option correcte dans le menu «Advanced Bios Features Setup».

BootEasy sauvegarde toutes les informations lorsque le PC démarre normalement et restaure les paramètres pour le système, permettant ainsi au PC de démarrer rapidement.

Note:

1. Le PC démarre de manière classique dans les cas suivants:
    - Premier démarrage après activation de l'option BootEasy
    - Informations sauvegardées endommagées
    - Echec au démarrage du PC à 3 reprises

2. N'arrêtez pas ou ne redémarrez pas le système lorsque BootEasy s'initialise

3. Placez «QDI BootEasy Feature» sur «Disabled» avant de changer un composant du système
    Placez «QDI BootEasy Feature» sur «Enabled» après le changement.

Le menu SpeedEasy

I.   Insérez le processeur correctement.

II.   Connectez les autres éléments du système (voir Installation).

III.   Au démarrage du système, pressez la touche <Suppr> pour entrer dans le Bios

IV.   Entrez dans le menu «CPU SpeedEasy setup»

Note: si vous ne déterminez pas la vitesse de votre unité centrale, votre système fonctionnera par défaut (200MHz pour les CPU avec une fréquence de Bus de 100MHz et 133MHz pour les CPU à 66MHz).

V.   Sauvegardez et quittez le Bios.

## CMOS Setup Utility – Copyright© 1984-1999 Award Software
SpeedEasy CPU Setup

CPU Model	: Intel® Celeron™	Item Help
CPU Speed	: 433 Mhz (66x6.5)	
X Multiplier	X2	Menu Level >
X Bus Clock	66MHz	
Spread Spectrum	Disabled	

Le menu SpeedEasy vous fournit un ensemble de valeurs. Vous pouvez sélectionner manuellement la vitesse de CPU dans ce menu soit en mode "SpeedEasy" soit en mode "Jumper Emulation" (voir manuel).

ATTENTION: Ne pas sélectionner une fréquence de fonctionnement du CPU supérieure à celle indiquée par le constructeur. Nous déclinons toute responsabilité pour tout dégât qui en résulterait.

SynactiX 1E

CPU: Socket 370 PIII/Celeron/Cyrix III
FSB: 66/100/133
Chipset: Intel 815E
Form Factor: MicroATX/1 AGP/3 PCI/1CNR
AGP: 4X AGP
Graphics: Integrate Intel 3D Graphics
/Extend 4M Display Cache by AIMM card
Memory: 3 DIMM/512MB/PC 133
IDE: ATA33/66/100
USB: 4 USB
Audio: Onboard AC'97 Audio
LAN: Onboard Intel 100/10Mb Ethernet
(Optional)
QDI Innovations: SpeedEasy, LogoEasy,
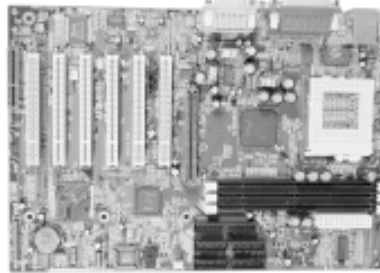ManageEasy, BIOS-ProtectEasy, Recove-
ryEasy
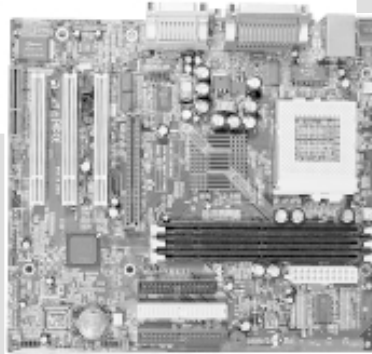
SynactiX 1EP
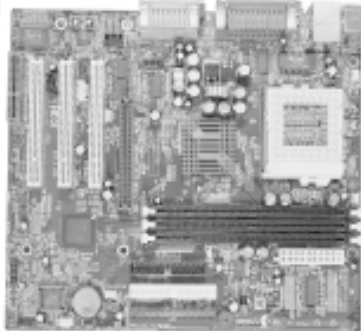
CPU: Socket 370 PIII/Celeron/Cyrix III
FSB: 66/100/133
Chipset: Intel 815EP
Form Factor: MicroATX/1 AGP/3 PCI/1CNR
AGP: 4X AGP
Memory: 3 DIMM/512MB/PC 133
IDE: ATA33/66/100
USB: 4 USB
Audio: Onboard AC'97 Audio
LAN: Onboard Intel 100/10Mb Ethernet
(Optional)
QDI Innovations: SpeedEasy, LogoEasy,
ManageEasy, BIOS-ProtectEasy, Recove-
ryEasy, BootEasy

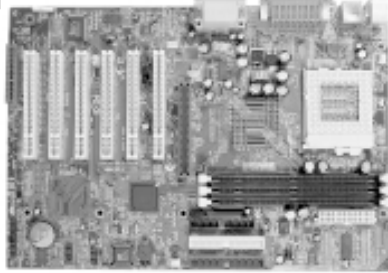**Welcome to visit www.qdigrp.com for products Introduction**

SynactiX 2E

CPU: Socket 370 PIII/Celeron/Cyrix III
FSB: 66/100/133
Chipset: Intel 815E
Form Factor: ATX/1 AGP/6 PCI/1 CNR
AGP: 4X AGP
Graphics: Integrate Intel 3D Graphics /Extend 4M Display Cache by AIMM card
Memory: 3 DIMM/512MB/PC 133
IDE: ATA33/66/100
USB: 4 USB
Audio: Onboard AC'97 Audio
LAN: Onboard Intel 100/10Mb Ethernet (Optional)
QDI Innovations: SpeedEasy, LogoEasy ManageEasy, BIOS-ProtectEasy, RecoveryEasy

SynactiX 2EP

CPU: Socket 370 PIII/Celeron/Cyrix III
FSB: 66/100/133
Chipset: Intel 815EP
Form Factor: ATX/1 AGP/6 PCI/1 CNR
AGP: 4X AGP
Memory: 3 DIMM/512MB/PC 133
IDE: ATA33/66/100
USB: 4 USB
Audio: Onboard AC'97 Audio
LAN: Onboard Intel 100/10Mb Ethernet (Optional)
QDI Innovations: SpeedEasy, LogoEasy, ManageEasy, BIOS-ProtectEasy, RecoveryEasy, BootEasy

Welcome to visit www.qdigrp.com for products Introduction

Board Layout of
SynactiX 5EP/5EI V2.0

This layout is just for your reference