SY-5EHM/5EH5 V1.3

Super 7™ Motherboard

Quick Start Guide

NSTL "Year 2000 Test" Certification Letter

September 23, 1998

Testing Date: September 23, 1998
Certification Date: September 23, 1998
Certification Number: NCY2000-980923-004

To Whom It May Concern:

We are please to inform you that the "SY-5EHM/5EH5" system has passed NSTL Year 2000 certification test program. The Year 2000 test program tests a personal computer for its ability to support the year 2000. The "SY-5EHM/5EH5: system is eligible to carry the NSTL :Year 2000 Certification" seal.

The Year 2000 certification test has been done under the following system configuration:

Company Name	: SOYO COMPUTER INC.
System Model Name	: SY-5EHM/5EH5
Hardware Revision	: N/A
CPU Model	: Intel Pentium 200/66Mhz
On Board Memory/L2 Cache	: PC100 SDRAM DIMM 32MBx1 /1MB
System BIOS	: Award Modular BIOS V4.51PG, An Energy Star Ally Copyright © 1984—98, EH-1A6,07/15/1998-VP3-586B-8669-2A5LES2AC-00

Best regards,

Summer Chien
NSTL/ALLION Labs
Vice President

SPORTON INTERNATIONAL INC.

Declaration of Conformity

According to 47 CFR, Part 2 and 15 of the FCC Rules

Declaration No.: D872907 ***July.10 1998***

The following designated product

EQUIPMENT: Main Board
MODEL NO.: SY-5EH

Which is the Class B digital device complies with 47 CFR Parts 2 and 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.

The product was tested with the following configuration:

Monitor: SONY/AK8GDM17SE2T
Modem: ACEEX/IF AXDM1414
Printer: HP/DS17XU2225
Keyboard: SILITED/GYUM99SK

This declaration is given for the manufacturer

SOYO COMPUTER INC.
No.21, Wu-Kung 5 Rd., Hsing Chuang City,
Taipei Hsien, Taiwan, R.O.C.

The test was carried out by

SPORTON INTERNATIONAL INC.
6F, No. 106, Hsin Tai Wu Rd., Sec. 1, His Chih,
Taipei Hsien, Taiwan, R.O.C.

Manufacturer Signature

SPORTON LAB. Signature

5EHM/5EH5 V1.3 Super 7™ Motherboard

Pentium® Class CPU (66&100MHz) supported
ETEQ82C663 PCI/AGP Motherboard
AT Form Factor

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About This Guide:
This Quick Start Guide is for assisting system manufacturers and end users in setting up and installing the Motherboard. Information in this guide has been carefully checked for reliability; however, no guarantee is given as to the correctness of the contents. The information in this document is subject to change without notice.

If you need any further information, please visit our **Web Site** on the Internet. The address is **"http://www.soyo.com.tw".**

5EHM/5EH5 V1.3 Serial - Version 1.4 - Edition: April 2001

* These specifications are subject to change without notice

1 Introduction

Congratulations on your purchase of the **5EHM/5EH5 V1.3** Super 7™ Motherboard. This *Quick Start Guide* describes the steps for installing and setting up your new Motherboard.

This guide is designed for all users to provide the basic steps of Motherboard setting and operation. For further information, please refer to *5EHM/5EH5 V1.3 Motherboard User's Manual and Technical Reference* online manual included on the CD-ROM packed with your Motherboard.

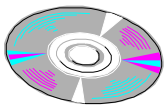
Unpacking

When unpacking the Motherboard, check for the following items:

- The 5EHM/5EH5 V1.3 Super 7™ Motherboard

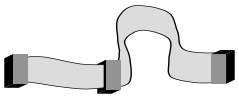
- This Quick Start Guide

- The Installation CD-ROM

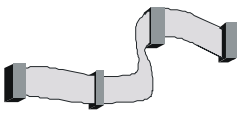


- SOYO Bonus Pack CD-ROM

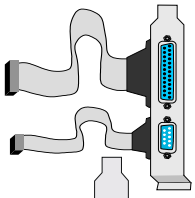
- One IDE Device Flat Cable



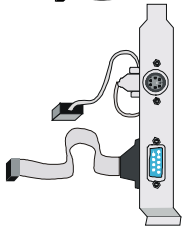
- One Floppy Disk Drive Flat Cable



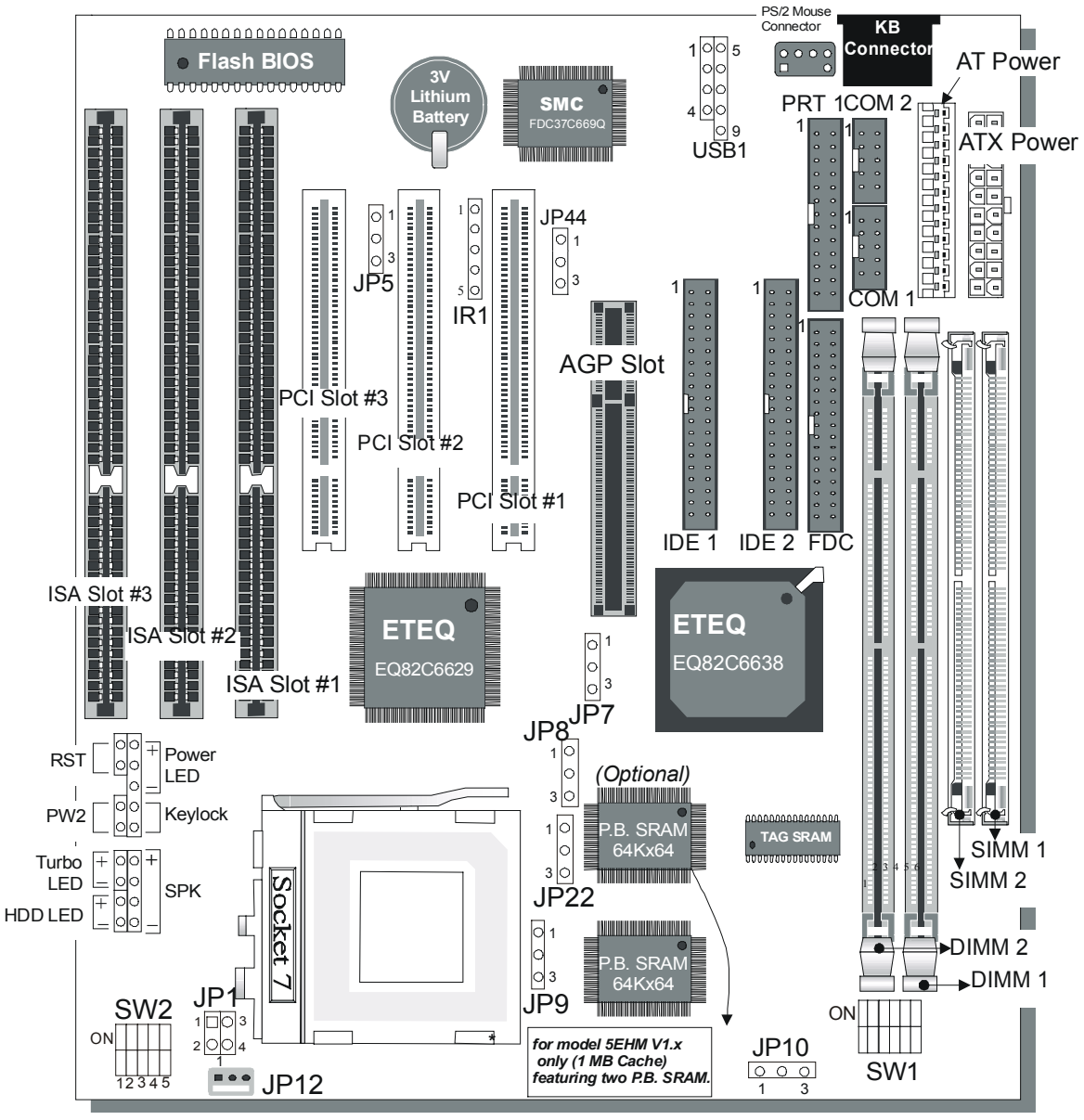
- One dual 25-pin parallel with 25-pin flat cable and 9-pin serial with 9-pin flat cable external connector



- One dual 6-pin PS/2 mouse connector with 6-pin flat cable and 9-pin serial connector with 9-pin flat cable



SY-5EHM/5EH5 V1.3 Motherboard Layout



Key Features

- 100MHz AGP Super 7™ platform
- 512KB/1MByte L2 cache
- Supports CPU voltage from 2.0V to 3.5V in 0.1V increments
- PC98, ACPI, Ultra DMA/33
- Power-on by modem or alarm
- Supports AT or ATX power connector
- Supports Wake-On-LAN (WOL)
- Fan off in suspend mode
- 1 x 32-bit AGP slot
- 3 x 32-bit bus master PCI slots
- 3 x 16-bit ISA slots
- 1 x IrDA port
- Supports multiple-boot function

2 Installation

To avoid damage to your Motherboard, follow these simple rules while handling this equipment:

- Before handling the Motherboard, ground yourself by grasping an unpainted portion of the system's metal chassis.
- Remove the Motherboard from its anti-static packaging. Hold it by the edges and avoid touching its components.
- Check the Motherboard for damage. If any chip appears loose, press carefully to seat it firmly in its socket.

Follow the directions in this section designed to guide you through a quick and correct installation of your new **5EHM/5EH5 V1.3** Super 7™ Motherboard. For detailed information, please refer to *5EHM/5EH5 V1.3 Motherboard User's Manual and Technical Reference* online manual included on the CD-ROM packed with your Motherboard.

PREPARATIONS

Gather and prepare all the necessary hardware equipment to complete the installation successfully:

- Pentium® Class processor with cooling fan
- SDRAM module(s)
- Computer case and chassis with adequate power supply unit
- Monitor
- Keyboard
- Pointing Device (PS/2 mouse)
- VGA Card
- Sound Card (optional)
- Speaker(s) (optional)
- Disk Drives: HDD, CD-ROM, Floppy drive…
- External Peripherals: Printer, Plotter, and Modem- (optional)

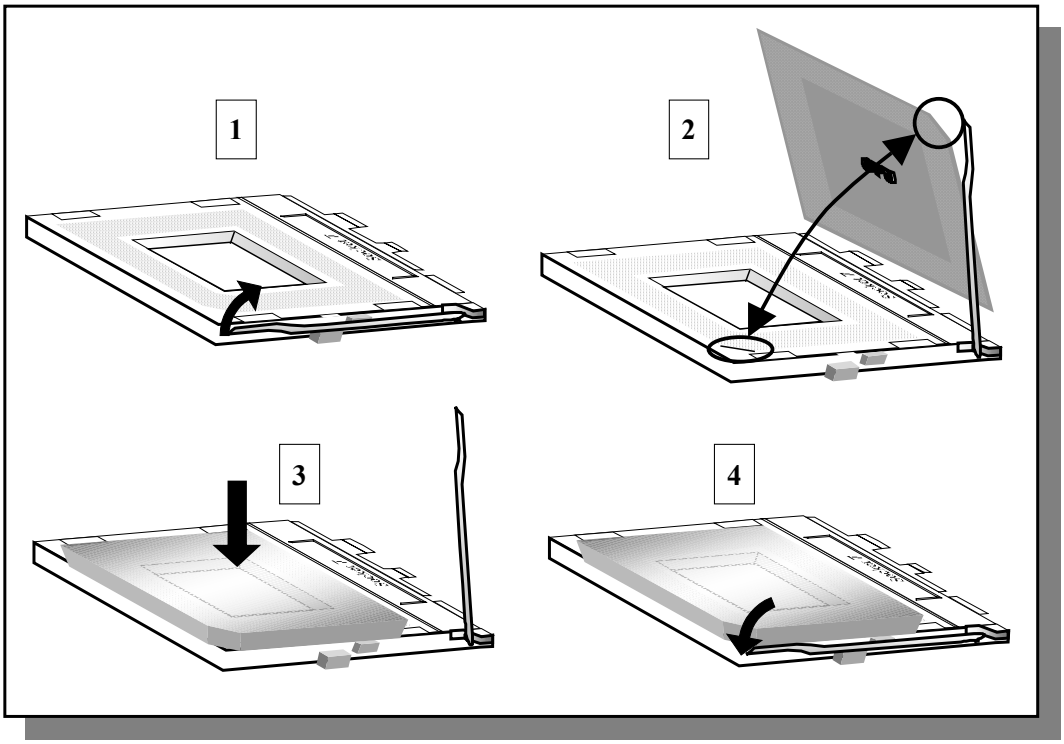
Install the Motherboard

Follow the steps below in order to perform the installation of your new **5EHM/5EH5 V1.3** Super 7™ Motherboard.

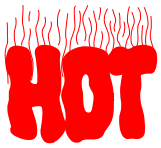
Step 1. Install the CPU

To mount the Pentium® processor that you have purchased separately, follow these instructions.

CPU Mount Procedure



1. Lift the socket handle up to a vertical position.
2. Align the blunt edge of the CPU with the matching pinhole distinctive edge on the socket.
3. Seat the processor in the socket completely and without forcing.
4. Then close the socket handle to secure the CPU in place.



Remember to connect the CPU Cooling Fan to the appropriate power connector (JP12) on the Motherboard. *The fan is a key component that will ensure system stability. The fan prevents overheating, therefore prolonging the life of your CPU.*

Step 2. Attach Connectors

This section tells how to connect internal peripherals and power supply to the Motherboard.

Internal peripherals include IDE devices (HDD, CD-ROM), Floppy Disk Drive, Front Panel Devices (Turbo LED, Internal Speaker, Reset Button, IDE LED, and KeyLock Switch.), Wake-On-LAN card, VGA card, Sound Card, and other devices.

For more details on how to connect internal and external peripherals to your new 5EHM/5EH5 V1.3 Super 7™ Motherboard, please refer to *5EHM/5EH5 V1.3 Motherboard User's Manual and Technical Reference* online manual on the CD-ROM.

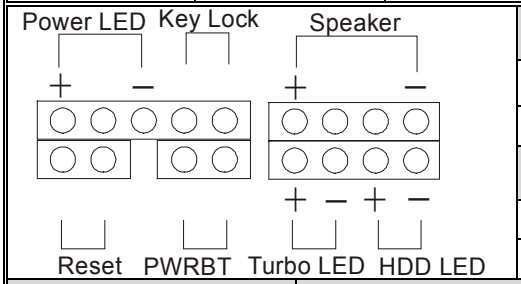
Connectors and Plug-ins

IrDA (Infrared Device Header): IR1				
Pin1	Pin2	Pin3	Pin4	Pin5
VCC	None	IRRX	GND	IRTX

Wake-On-LAN Header: JP44		
Pin1	Pin2	Pin3
5VSB	GND	MP-Wakeup

CPU Cooling Fan: JP12		
Pin1	Pin2	Pin3
GND	12V	NC

USB
Connect your USB devices to this header.



Power LED			Keylock	
Pin1	Pin2	Pin3	Pin1	Pin2
5V	NC	GND	Control Pin	GND

Speaker			
Pin1	Pin2	Pin3	Pin4
5V	NC	NC	Speaker out

HDD LED		TB LED		PWRBT		RESET	
Pin1	Pin2	Pin1	Pin2	Pin1	Pin2	Pin1	Pin2
LED Anode	LED Cathode	LED Anode	LED Cathode	Power On/Off	GND	Power Good	GND

ATX Power On/Off: PWRBT

Connect your power switch to this header (momentary switch type).
To turn off the system, please press this switch and hold down for longer than 4 seconds.

ATX Power Supply: ATX PW

Attach the ATX Power cable to this connector.
Please make sure the ATX power supply can take at least 720mA load on the 5V standby lead (5VSB), if you want to use the advanced power management functions like Power-On by modem or WOL.

Note: Use only ONE type of power supply. If an AT power supply is used, do not attach an ATX power supply.

AT Power Supply

Connect the AT Power cable to this connector if you use an AT power supply.

Step 3. Set SW2 ,JP1 for CPU Voltage

SW2 is used to set the CPU core voltage, JP1 is used to select the CPU voltage type single voltage or dual voltage.

Please verify the correct voltage settings with your dealer before installation. Use the following table to set SW2, JP1 to the proper voltage value according to the specifications marked on your CPU:

Processor	Voltage	Voltage Setting: SW2					JP1	
		1	2	3	4	5	1-2	3-4
AMD K5 PR100 AMD K5 PR133 AMD K5 PR166	3.52 V	on	on	on	on	**off**	open	open
	The AMD K5 and K6 come in several versions with different voltages. Please verify the correct voltage settings with your dealer before installation. The most common K5 runs on 3.52V.							
AMD K6 166 AMD K6 200	2.9 V	on	**off**	**off**	on	**off**	**close**	**close**
AMD K6 233	3.2 V	**off**	**off**	on	on	**off**	**close**	**close**
AMD K6 266 AMD K6 300 AMD K6-2 266 AMD K6-2 300 AMD K6-2 333 AMD K6-2 350 AMD K6-2 366 AMD K6-2 380 AMD K6-2 400 AMD K6-2+ 450 AMD K6-2 533	2.2 V	**off**	on	**off**	**off**	**off**	**close**	**close**
AMD K6-2 550	2.3 V	on	on	**off**	**off**	**off**	**close**	**close**
AMD K6-2 450	2.2 V	**off**	on	**off**	**off**	**off**	**close**	**close**
AMD K6-2 475	2.4 V	**off**	**off**	on	**off**	**off**	**close**	**close**
AMD K6-2 500 AMD K6-III 400 AMD K6-III 450	The AMD K6-2 and K6-III come in several versions with different voltages. Please ask your dealer for the correct voltage.							
Cyrix 6x86(L) PR166+ Cyrix 6x86(L) PR200+	The Cyrix 6X86(L) and M Ⅱ come in several versions with different voltages. Please ask your dealer for the correct voltage.							
Cyrix 6x86MX PR166 Cyrix 6x86MX PR200 Cyrix 6x86MX PR233 Cyrix 6x86MX PR266 Cyrix MII 300 Cyrix MII 333 Cyrix MII 366	2.9 V	on	**off**	**off**	on	**off**	**close**	**close**
Cyrix MII 400 Cyrix MII 433	2.2 V	**off**	on	**off**	**off**	**off**	**close**	**close**
Intel P54C P100	3.3 V	on	off	on	on	off	open	open
Intel P54C P133 Intel P54C P166 Intel P54C P200	The P54C (standard Pentium®) comes in several versions with different voltages. Please ask your dealer for the correct voltage. The most common P54C runs on 3.3V.							

Processor	Voltage	Voltage Setting: SW2					JP1	
		1	2	3	4	5	1-2	3-4
Intel P55C P166 Intel P55C P200 Intel P55C P233	2.8 V	**off**	**off**	**off**	on	**off**	**close**	**close**
	The P55C (MMX) processors have the same voltage setting.							
IDT X86 CPU C6/2-225* IDT X86 CPU 2-266 IDT X86 CPU 2-300	3.52 V	on	on	on	on	**off**	open	open
	The IDT X86 CPU C6/2 comes in several versions with different. Voltage. Please ask your dealer for the correct voltage.							
IDT X86 CPU C6/2-200* IDT X86 CPU 2-233*	3.3 V	on	off	on	on	off	open	open
Rise mP6 PR266	2.8 V	**off**	**off**	**off**	on	**off**	**close**	**close**

Step 4. Set SW1 for CPU Frequency

The DIP switch SW1 enables you to assign the Frequency Multiplier, CPU Host Bus Clock, AGP Clock and PCI Clock, as shown in the following table:

Processor	Multiplier	CPU Bus Clock	JP7	JP9	JP10	Frequency Setting: SW1					
						1	2	3	4	5	6
AMD K5 PR100	1.5x	66MHz	2-3	2-3	1-2	off	off	off	off	**on**	**on**
AMD K5 PR133	2.0x	66MHz	2-3	2-3	1-2	**on**	off	off	off	**on**	**on**
AMD K5 PR166	2.5x	66MHz	2-3	2-3	1-2	**on**	**on**	off	off	**on**	**on**
AMD K6 166	2.5x	66MHz	2-3	2-3	1-2	**on**	**on**	off	off	**on**	**on**
AMD K6 200	3x	66MHz	2-3	2-3	1-2	off	**on**	off	off	**on**	**on**
AMD K6 233	3.5x	66MHz	2-3	2-3	1-2	off	off	off	off	**on**	**on**
AMD K6 266	4.0x	66MHz	2-3	2-3	1-2	**on**	off	**on**	off	**on**	**on**
AMD K6 300	4.5x	66MHz	2-3	2-3	1-2	**on**	**on**	**on**	off	**on**	**on**
AMD K6-2 266	4.0x	66MHz	2-3	2-3	1-2	**on**	off	**on**	off	**on**	**on**
AMD K6-2 300	4.5x	66MHz	2-3	2-3	1-2	**on**	**on**	**on**	off	**on**	**on**
	3x	100MHz	1-2	2-3	1-2	off	**on**	off	off	off	off
AMD K6-2 333	5.0x	66MHz	2-3	2-3	1-2	off	**on**	**on**	off	**on**	**on**
	3.5x	95MHz	1-2	2-3	1-2	off	off	off	**on**	off	off
AMD K6-2 350	3.5x	100MHz	1-2	2-3	1-2	off	off	off	off	off	off
AMD K6-2 366	5.5x	66MHz	2-3	2-3	1-2	off	off	**on**	off	**on**	**on**
AMD K6-2 380	4.0x	95MHz	1-2	2-3	1-2	**on**	off	**on**	**on**	off	off
AMD K6-2 400	4.0x	100MHz	1-2	2-3	1-2	**on**	off	**on**	off	off	off
AMD K6-2 450	4.5x	100MHz	1-2	2-3	1-2	**on**	**on**	**on**	off	off	off
AMD K6-2 475	5.0x	95MHz	1-2	2-3	1-2	off	**on**	**on**	**on**	off	off
AMD K6-2 500	5.0x	100MHz	1-2	2-3	1-2	off	**on**	**on**	off	off	off
AMD K6-2 533	5.5x	97MHz	1-2	2-3	1-2	off	off	**on**	**on**	off	**on**
AMD K6-2 550	5.5x	100MHz	1-2	2-3	1-2	off	off	**on**	off	off	off

Processor	Multiplier	CPU Bus Clock	JP7	JP9	JP10	Frequency Setting: SW1					
						1	2	3	4	5	6
AMD K6-2+ 450	4.5x	100MHz	1-2	2-3	1-2	**on**	**on**	**on**	off	off	off
AMD K6-III 400	4.0x	100MHz	1-2	2-3	1-2	**on**	off	**on**	off	off	off
AMD K6-III 450	4.5x	100MHz	1-2	2-3	1-2	**on**	**on**	**on**	off	off	off
Cyrix 6x86 MX PR 166+	2.0x	66MHz	2-3	2-3	1-2	**on**	off	off	off	**on**	**on**
Cyrix 6x86 PR MX 200+	2.0x	75MHz	2-3	2-3	1-2	**on**	off	off	off	off	**on**
Cyrix 6x86 MX PR 166	2.0x	66MHz	2-3	2-3	1-2	**on**	off	off	off	**on**	**on**
Cyrix 6x86 MX PR 200	2.5x	66MHz	2-3	2-3	1-2	**on**	**on**	off	off	**on**	**on**
	2.0x	75MHz	2-3	2-3	1-2	**on**	off	off	off	off	**on**
Cyrix 6x86 MX PR 233	2.5x	75MHz	2-3	2-3	1-2	**on**	**on**	off	off	off	**on**
Cyrix 6x86 MX PR 266	2.5x	83MHz	1-2	2-3	1-2	**on**	**on**	off	off	**on**	off
Cyrix MII 300	3.5x	66MHz	2-3	2-3	1-2	off	off	off	off	**on**	**on**
	3x	75MHz	2-3	2-3	1-2	off	**on**	off	off	off	**on**
Cyrix MII 333	4.0x	66MHz	2-3	2-3	1-2	**on**	off	**on**	off	**on**	**on**
	3.5x	75MHz	2-3	2-3	1-2	off	off	off	off	off	**on**
	3x	83MHz	1-2	2-3	1-2	off	**on**	off	off	**on**	off
Cyrix MII 366	2.5x	100MHz	1-2	2-3	1-2	**on**	**on**	off	off	off	off
Cyrix MII 400	3x	95MHz	1-2	2-3	1-2	off	**on**	off	**on**	off	off
Cyrix MII 433	3x	100MHz	1-2	2-3	1-2	off	**on**	off	off	off	off
P54C P100	1.5x	66MHz	2-3	2-3	1-2	off	off	off	off	**on**	**on**
P54C P133	2.0x	66MHz	2-3	2-3	1-2	**on**	off	off	off	**on**	**on**
P54C/P55C P166	2.5x	66MHz	2-3	2-3	1-2	**on**	**on**	off	off	**on**	**on**
P54C/P55C P200	3x	66MHz	2-3	2-3	1-2	off	**on**	off	off	**on**	**on**
P55C P233	3.5x	66MHz	2-3	2-3	1-2	off	off	off	off	**on**	**on**
IDT X86 CPU C6/2-200	3x	66MHz	2-3	2-3	1-2	off	**on**	off	off	**on**	**on**
IDT X86 CPU C6/2-225	3x	75MHz	2-3	2-3	1-2	off	**on**	off	off	off	**on**
IDT X86 CPU 2-233	3.5x	66MHz	2-3	2-3	1-2	off	off	off	off	**on**	**on**
IDT X86 CPU 2-266	2.33x	100MHz	1-2	2-3	1-2	off	**on**	**on**	off	off	off
IDT X86 CPU 2-300	2.5x	100MHz	1-2	2-3	1-2	**on**	**on**	off	off	off	off
Rise mP6 PR266	3x	66MHz	2-3	2-3	1-2	off	**on**	off	off	**on**	**on**
	2.0x	100MHz	1-2	2-3	1-2	**on**	off	off	off	off	off

This main board supports various CPU multiplier and host bus frequency settings.
Please select the proper frequency setting based on specifications of the CPU you have purchased. System stability or components damage, in case of over-specification setting, is not guaranteed.

- Jumper JP7 is used to indicate the frequency of the CPU bus clock to the ETEQ chipset. Jumpers JP9 and JP10 are used to determine that the SDRAM is running at the frequency of the CPU bus clock or at that of the AGP clock.

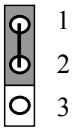
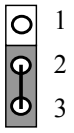
CPU BUS Clock	AGP BUS Clock	PCI Clock	JP7	JP9	JP10	SDRAM Clock
66MHz	66MHz	33MHz	2-3	2-3	1-2	66MHz
75MHz	75MHz	37.5MHz	2-3	2-3	1-2	75MHz
83MHz	55MHz	27.5MHz	1-2	1-2	2-3	55MHz
			1-2	2-3	1-2	83MHz
95MHz	63.4MHz	31.7MHz	1-2	1-2	2-3	63.4MHz
			1-2	2-3	1-2	95MHz
97MHz	64.6MHz	32.3MHz	1-2	1-2	2-3	64.6MHz
			1-2	2-3	1-2	97MHz
100MHz	66MHz	33MHz	1-2	1-2	2-3	66MHz
			1-2	2-3	1-2	100MHz
112MHz	75MHz	37.5MHz	1-2	1-2	2-3	75MHz
			1-2	2-3	1-2	112MHz
124MHz	82.6MHz	41.3MHz	1-2	1-2	2-3	82.6MHz
			1-2	2-3	1-2	124MHz

Note: Use 8ns or faster SDRAM modules (for PC100) when SDRAM is set to run at the frequency of 95/100MHz.

Step 5. Select the CPU Burst Mode (JP22)

There are two types of CPU burst modes according to manufacturer design:

- Interleave Burst (CPU: Intel P54C/P55C, AMD K5/K6/K6-2/K6-III,IDT X86 CPU, Rise mP6)
- Linear Burst (CPU: Cyrix 6x86/L/MX/M II)

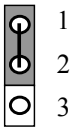
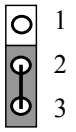
CPU Burst Mode	Interleave	Linear
	Intel™ P54C/P55C AMD™ K5/K6/K6-2/K6-III IDT X86 CPU, Rise mP6	**Cyrix™ 6x86/L/MX/MII**
JP22 Setting	When using Intel or AMD CPUs. **(Default)** 	When using Cyrix type of CPU. 

If you are using a Cyrix™ 6x86/L/MX/M II series CPU, set the burst mode to Linear by shorting pin 2-3 on jumper JP22, and follow the following steps to select the correct Linear burst mode in BIOS:

1. During the boot-up initial sequence, press the [Delete] key to enter the BIOS setup menu.
2. Select the [CHIPSET FEATURES SETUP] section in BIOS.
3. In the [CHIPSET FEATURES SETUP] sub-menu, set the [Linear Burst] field to [Enabled].
4. Press [Esc] to return to the BIOS main menu.
5. Then choose [Save & Exit Setup] to re-boot your computer.

Step 6. CPU frequency of 83MHz Setting (JP8)

This jumper is used in the CPU frequency selection. It is set to 1-2 for a CPU frequency of 83 MHz. For all other CPU frequencies it has to be set to 2-3.

CPU frequency	83MHz	All other CPU Frequencies
JP8 Setting	Close pin1-2 	Close pin2-3 

Step 7. Configure Memory

Your board comes with one SIMM Bank (2 modules) and two DIMM sockets, providing support for up to 512MB of main memory using DIMM modules from 8MB to 256MB. For 66MHz host bus CPUs use 12ns or faster DIMM modules; for 83MHz host bus CPUs use 8ns modules.

Memory Configuration Table

MEMORY CONFIGURATION	SIMM Bank	DIMM Banks	
	Bank 1,2	DIMM 1	DIMM 2
RAM Type	FPM/EDO/BEDO	EDO/SDRAM	EDO/SDRAM
Single RAM Module Size (MB)	4/8/16/32/64	8/16/32/64/128/256	8/16/32/64/128/256

Note: 1. You must install two SIMM modules to complete the SIMM Bank

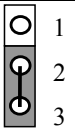
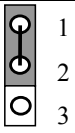
2. Do not use FPM or EDO type of SIMM/DIMM if you already use SDRAM.

3. Do not install SIMM Bank and DIMM 1 at the same time.

Clear CMOS (JP5)

In some cases the CMOS memory may contain wrong data, follow the steps below to clear CMOS memory.

1. Clear the CMOS memory by momentarily shorting pin 2-3 on jumper JP5. This jumper can be easily identified by its white colored cap.
2. Then put the jumper back to 1-2 to allow writing of new data into the CMOS memory.

CMOS Clearing	Clear CMOS Data	Retain CMOS Data
JP5 Setting	short pin 2-3 to clear the CMOS 	Short pin 1-2 to retain new settings 
Note: You must unplug the ATX power cable from the ATX power connector when performing the CMOS Clear operation.		

3 *Quick BIOS Setup*

After the hardware installation is complete, turn the power switch on, then press the **<DEL>** key during the system diagnostic checks to enter the Award BIOS Setup program. The CMOS SETUP UTILITY will display on screen. Then, follow these steps to complete the quick BIOS setup.

Step 1. Select [LOAD SETUP DEFAULT]

Select the "LOAD SETUP DEFAULT" menu and type "Y" at the prompt to load the BIOS optimal setup.

Step 2. Select [STANDARD CMOS SETUP]

Set [Date/Time] and [Floppy drive type], then set [Hard Disk Type] to "Auto".

Step 3. Select [SAVE & EXIT SETUP]

Press **<Enter>** to save the new configuration to the CMOS memory, and continue the boot sequence.

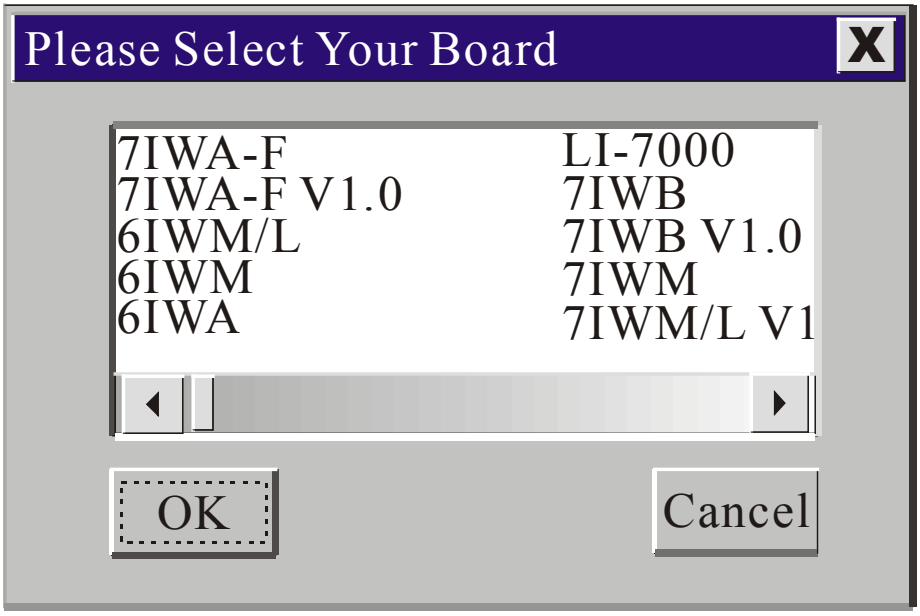
4 The SOYO CD

The SOYO-CD will NOT autorun if you use it on an Operating System other than Windows 2000 or NT.

Your SY-5EHM/5EH5 V1.3 Motherboard comes with a CD-ROM labeled "SOYO CD." The SOYO CD contains (1) the user's manual file for your new Motherboard, (2) the drivers software available for installation, and (3) a database in HTML format with information on SOYO Motherboards and other products.

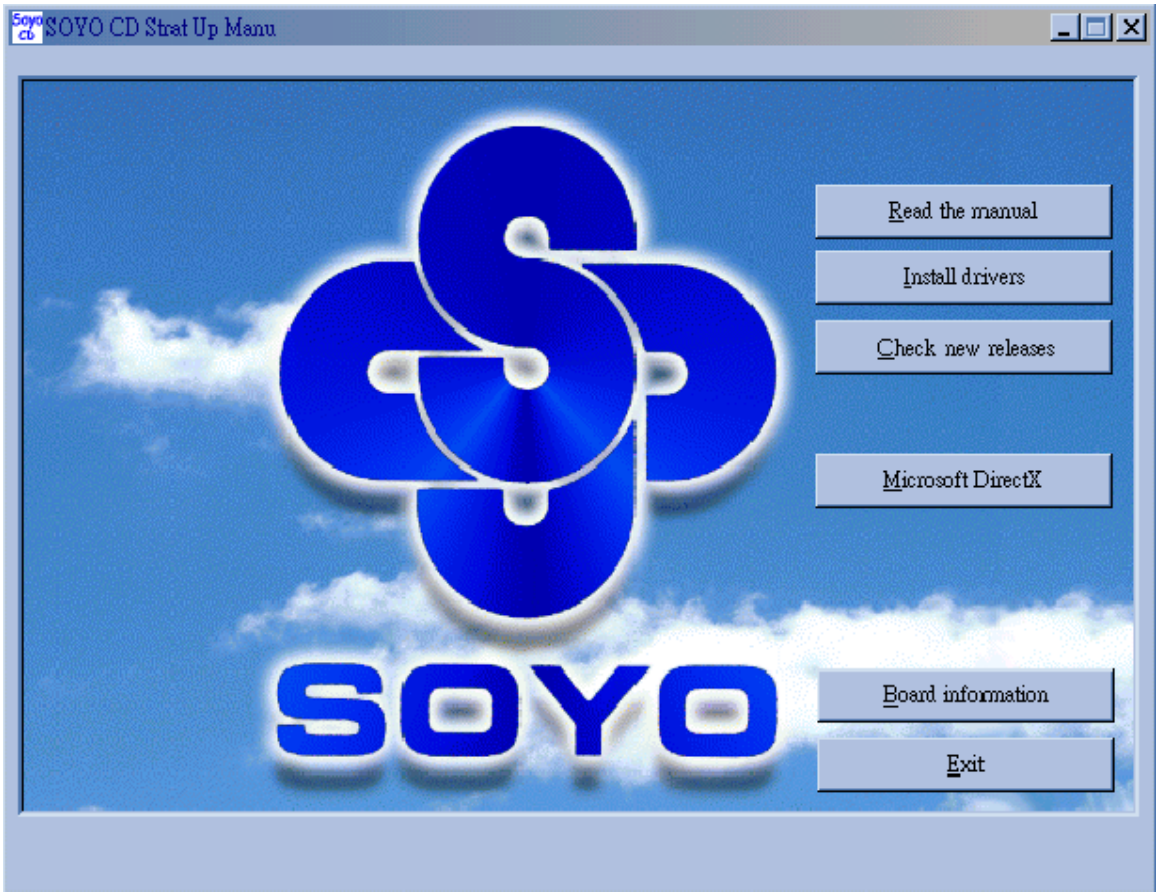
Step 1. Insert the SOYO CD into the CD-ROM drive

If you use Windows NT, the SOYO-CD will not detect your motherboard type. In that case the following dialog will pop up, please choose your motherboard and press OK. Now the SOYO-CD Start Up Menu will be shown.



(SOYO CD Start Up Program Menu)

If you use Windows 95/98/ME, the SOYO CD Start Up Program automatically detects which SOYO Motherboard you own and displays the corresponding model name.



The user's manual files included on the SOYO CD are in PDF (Postscript Document) format. In order to read a PDF file, the appropriate Acrobat Reader software must be installed in your system.

Note: The Start Up program automatically detects if the Acrobat Reader utility is already present in your system, and otherwise prompts you on whether or not you want to install it. You must install the Acrobat Reader utility to be able to read the user's manual file. Follow the instructions on your screen during installation, then once the installation is completed, restart your system and re-run the SOYO CD.

Step 2. Install Drivers and Utilities

The following describes the best way of installing Windows 95 or Windows 98 on your 5EHM/5EH5 V1.3 Motherboard:

➢ The following BIOS default settings should not be changed:

1. The 'OnChip USB Controller' item under 'Chipset features Setup' is set to enabled.
2. The 'USB Assigned IRQ' item under 'PnP/PCI Configuration is set to enabled.

You MUST have these two items enabled for Windows 95/98 to run properly on your system.

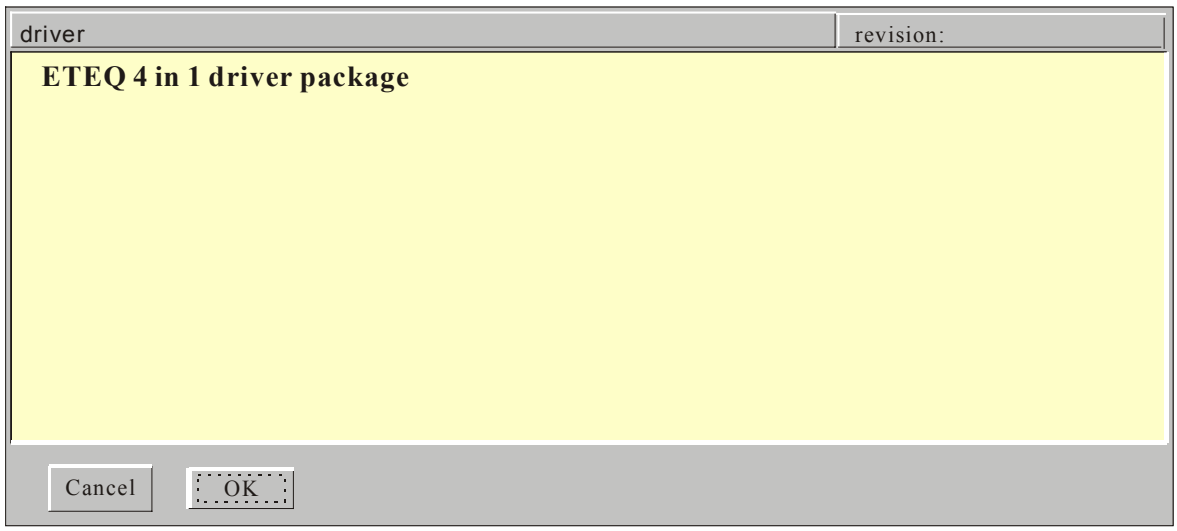
➢ Install Windows 95/98

➢ If you installed Windows 95 you will now need to upgrade your USB driver by running

the following program on your Windows CD: Win95/OSR2/Usbsupp/USBsupp.exe

- After installation of windows, you will need to install the ETEQ drivers. Follow the instruction below.

Click the ***Enter Install the drivers*** button to display the list of drivers that can be installed on your Motherboard. The start-up program displays the drivers available for the 5EHM/5EH5 V1.3 and the Windows version you use. Click the Install drivers button to display the list of drivers that can be installed on your Motherboard. The start-up program displays the drivers available for the 5EHM/5EH5 V1.3.



(Driver Installation Menu)

A short description of all available drivers follows:

- **ETEQ 4in1 driver package**

The 4 in 1 driver package includes all drivers your motherboard needs. After selecting this driver package, one driver will be installed automatically (the IRQ remapping utility), the other three are installed if selected. By default all three drivers are selected. A description of the 4 drivers follows:

—**Bus Master PCI IDE Driver**

This driver will speed up the data-transfer rate to and from the harddisk.

—**AGP VxD Driver**

This driver must be installed in order to be able to make use of the on-board AGP Video functionality.

—**ETEQ Chipset Functions Registry**

This driver will make the necessary changes to the Windows registry, in order to make sure that Windows has no problems recognizing your ETEQ chipset.

—**IRQ remapping utility (This driver is installed automatically)**

This utility will remap the IRQ lines to make sure that everything functions properly under Windows.

Select which driver you want to install and click ***OK,*** or click ***Cancel*** to return to the main menu. When the installation program of a driver starts running the SOYO-CD will exit.
Note: When the installation is complete, most drivers require to restart your system before they can become active.

Step 3. Check the Latest Releases

Click the 'Check the latest Releases' button to go the SOYO Website to automatically find the latest BIOS, manual and driver releases for your motherboard. This button will only work if your computer is connected to the internet through a network or modem connection. Make sure to get your modem connection up before clicking this button.
(* Internet Explorer is a Microsoft Trademark)

Quick Trouble shoot tips

Video (no display) related issues

I built a new computer system using a Soyo board and nothing happens when turning it on, no video and no beeps from the PC speaker. What is happening and how can it be fixed?
No screen and no beeps mean that your CPU and motherboard do not work at all. It could be that the CPU is not seated correctly or that a component on the M/B is grounded (shorted) with the case. Also make sure to check the voltage setting switch (110V/220V) on the back of the power supply. To isolate the problem do the following:

1. Press and hold down on the "Ins" (insert) key while turning on the computer until you get video. If you do not get video then,

2. Double-check jumpers setting on you motherboard and remove all add-on cards, unplug all hard-disk and floppy-disk drive cables and see if you can hear some beeps. If you still do not get any beeps, then try putting the motherboard on the table (to isolate it from the case) with the CPU and speaker only, and give it one more try.

I hear a series of beeps and I do not get anything from my monitor. What could be wrong?
The following lists some basic beep codes and their possible meanings:

- One long beep and 3 very short beeps - The video card is not detected by the motherboard. Please re-seat your video card. If you are using an AGP card, please push your AGP card down real hard. You may have to push VERY hard without the AGP card mounting screw. Make sure not to insert the card the other way around.

- Continuous beeps – One or more of the memory modules is not seated correctly in its socket.

My PCI VGA card works fine with my system, but when I put in a new AGP card, it does not give me any video. Is my AGP slot bad?
This is a common problem with AGP video cards. The reason is that your AGP card did not get seated into the AGP slot fully and firmly. Please push your AGP card down into the socket real hard, it should snap twice. You may have to unscrew the AGP card to allow the card to go further down. Do take care not to damage the card by using too much force.

I get distorted video my AGP card right after I save my bios. Why is that?
The cause is likely that your AGP card is not running at the correct bus speed. To fix this, please clear the CMOS via JP5 and if it still does not work, please upgrade your motherboard bios to the latest version.

BIOS Issues

Where can I find the BIOS revision of my mainboard?
It will be displayed on the up-left corner on the screen during boot-up. It will show as your board type followed by the revision number, such as 5EH_2CA1 (meaning revision 2CA1 for the SY-5EH board) or 6BA+ IV_2AA2 which means SY-6BA+ IV motherboard with 2AA2 bios.

Where can I find the latest BIOS of my motherboard?
Please go to the technical support page of one of the SOYO websites (Taiwan: www.soyo.com.tw), and look up your motherboard to find the latest BIOS revision.

Hard disk, floppy drive, CD-ROM etc

When I boot up my new computer I got "floppy boot failure" and the LED on the floppy stays on
Make sure the red wire of floppy ribbon cable goes to Pin1 on the floppy drive side (don't trust the "key lock" or "notch") and use the end-connector of the cable (don't use middle one).

Modem issues

I get an "I/O Conflict" message when I turn on my system and I can not get my modem to work
What you need to do is to disable 'COM2' (or UART2 or serial port 2) in the bios under integrated peripheral setup.

I have installed my modem drivers several times and I still cannot get my modem to work. Why?
If you are sure that the modem driver has been installed correctly, then you need to install the south bridge driver from the SOYO CD, this is because Windows does not properly recognize relatively new chipsets.

Audio Issues

I do not get any sound from my sound card. What could be wrong?
Please make sure the speaker is connected to the speaker out port on your sound card.

In Device Manager, I keep getting yellow exclamation signs on my sound port even though I have installed my sound driver several times and I could not get my sound card to work. What is wrong?
It is likely that you did not have the correct driver installed. If you are sure that the correct sound driver has been installed, then please install the 'south bridge' driver for the motherboard.

The sound is working in my system, but when I play CD music from the CD-ROM, I do not get any sound. What is wrong?
This is because the 3-wire audio cable from the CD-ROM to the sound card is not connected or it is loose.

The sound from my sound card is distorted when Windows starts. What is wrong?
First, if you are using an ISA sound card, please make sure the IRQ needed for the sound card is set to 'Legacy ISA' in the bios. In other words, if your ISA sound card takes IRQ5, then set IRQ5 to 'Legacy ISA'. Next, install the 'south bridge' driver for the motherboard.

The sound and everything else works fine except that the recorder and microphone do not work. What is wrong?
This is because the recorder and microphone in the Windows are not enabled. Please go to sound properties and enable them.

Lock up (freeze)

When I boot up my system, everything works fine. It sees my CPU and memory, detects my hard drive, floppy drive and CD-ROM but locks up at "Verify DMI pool data... ", and it won't go any further. What should I do?
Please clear the CMOS via JP5 then choose 'load setup default' in the bios and save the bios and exit. Next, unplug all other add-on cards except the video card and floppy drive controller, and see if it can boot from floppy. Then put back the peripherals one by one to identify which one causes the lockup. If you are running a Cyrix CPU, make sure the 'linear burst function' is enabled in the bios.

I can not get my board to run properly.

Please make sure you have the latest bios and driver from the SOYO web site at: http://www.soyo.com

How to contact us:

- If you are interested in our products, please contact the SOYO sales department in the region you live.
- If you require Technical Assistance, please contact our Technical Support in the region you live.

SOYO prefers Email as communication medium, remember to *always add to the email the country that you live in*.

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