SI-1132+™

IDE Controller with I/O

User's Manual

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   Model _____

PRODUCT NAME	MODEL NUMBER
SI-1132+	CN2401

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B
OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

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.

FCC NOTICE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or TV technician for help

Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment

THE PARTY RESPONSIBLE FOR
PRODUCT COMPLIANCE
SIIG, Inc.
6078 Stewart Ave.
Fremont, CA 94538-3152
(510) 657-8688

03-0122I

October, 1998

Table of Contents

About this Manual

The purpose of this manual is to introduce you to your *SI-1132+*. It will guide you on how to configure and install the board for proper operation in your computer. Please save this manual for future reference.

This manual is comprised of the following sections:

Chapter 1: Introduction
Provides unpacking instructions and introduces the features of the *SI-1132+*.

Chapter 2: Verifying and Configuring System Resources
Provides an overview of basic principles for setting up new devices for trouble-free operation. A special section is included for Windows 95/98 users.

Chapter 3: Installation
Provides step by step instructions on how to configure and install the *SI-1132+* into your computer.

Chapter 4: Technical Support
Provides instructions on how to obtain technical support and return the product.

Chapter 1
Introduction

Thank you for your purchase of the *SI-1132+*. SIIG's goal is to provide its customers with affordable, quality products, backed by prompt customer support.

The purpose of this comprehensive user's manual is to:

- introduce you to the *SI-1132+'s* features and specifications
- guide you through the steps for an easy, trouble-free installation of hardware in your system
- provide technical support information in the event of a problem.

Before installing the board, please review this chapter for unpacking instructions and an overview of key features. Then refer to *Chapter 2: Verifying and Configuring System Resources* for detailed procedures on how to verify system resources and configure the serial and parallel ports in Windows 95/98 and *Chapter 3: Installation* for easy to follow installation procedures.

1-1 Unpacking Your *SI-1132+*

Please verify that the following items are included in the packaging carton:

- One *SI-1132+* board
- One connector bracket with one 9-pin serial port and one game port
- One 40-pin IDE hard disk ribbon cable
- One 34-pin floppy ribbon cable
- This comprehensive user's manual

Please consult your dealer if any item is damaged or missing.

1-1.1 Static Electricity Precaution

One of the routine precautions you must be aware of when working with computer components is the problem of static electricity discharge.

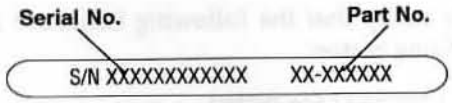
Note Leave the SI-1132+ in its static-resistant bag until you are ready to install it.

Caution Static electricity discharge may permanently damage your system. In order to avoid possible static electricity discharge during installation procedures, please follow the guidelines below:

- *Discharge any static electricity build up in your body by touching a large grounded metal surface or the computer's case (if plugged in), for a few seconds.*
- *During installation procedures, avoid any contact with internal parts. Handle boards only by their edges.*

1-1.2 Record the Serial Number

In order for SIIG's Technical Support or Customer Service Department to give you prompt service, you will need the following product information. ***The serial number label is located on the side of the box and on the back of the board.***



Please take a moment to record the serial number.

Serial Number: _____

Part Number: _____

Date purchased: _____

1-2 Introducing the *SI-1132+*

The *SI-1132+* is a high performance 16-bit ISA I/O controller board for use in 486/386 computers. It supports up to two IDE hard disk drives and two floppy disk drives up to 1.44MB. It also provides two high-speed serial ports (9-pin), one bi-directional parallel port and one game port.

1-2.1 Key Features and Benefits

- For use in AT-compatible computers
- Supports up to two IDE hard disk drives
- Supports up to two 5.25-inch (360KB/1.2MB) and/or 3.5-inch (720KB/1.44MB) floppy drives
- Two 16550 UART serial ports (9-pin) to support mice, serial printers, external modems and other serial devices
- One game port for the support of a joystick
- One bi-directional ECP/EPP parallel port to use with printer, iomega® and SyQuest® removable drive, scanner, CD-R/RW, external LAN adapter, and other parallel port devices
- All ports can be individually configured and disabled

1-2.2 IDE Interface Features

- Supports two IDE hard disk drives
- Primary/Secondary channel selection
- Enable/disable jumpers

1-2.3 Floppy Drive Interface Features

- Supports 3.5-inch (720KB/1.44MB) and 5.25-inch (360KB/1.2MB) floppy disk drives and tape drives
- Enable/disable jumpers

1-2.4 16550 Serial Port Features

- Two 16550 UART serial ports
- Supports COM1-4 and IRQ 3-5, 7 and 9-12
- Enable/disable jumpers

1-2.5 Bi-directional ECP/EPP Parallel Port Features

- Supports LPT2 (378h) and LPT3 (278h) and IRQ 5 and 7
- Supports standard and high-speed bi-directional ECP/EPP modes
- Enable/disable jumpers

1-2.6 System Requirements

486/386 computer with one available 16-bit ISA slot

Chapter 2 Verifying and Configuring System Resources

This chapter is provided to help you:

- understand the basic concept of system resources
- configure the board properly in Windows 95/98

Note A special section is provided as a guide for configuring a board in Windows 95/98 operating system.

2-1 Overview of System Resources

System resources refer to the addresses and communication channels that hardware devices use to communicate with the system. System resources typically include the following:

- I/O port address
- Interrupt ReQuest (IRQ) channel
- Direct Memory Access (DMA) channel

The resources used by a device depend on its function. For example, communications ports require an I/O address and an IRQ; sound cards need an I/O address, an IRQ and at least one DMA. Although there can be exceptions, the key to a successful installation is that the resources set for each device be different from any other device in your system. **A conflict will result if there is a common setting between devices.**

System resource conflicts causes many symptoms, such as:

- A device stops working
- The system frequently locks up
- Garbled characters appear on the monitor screen

Every *non* plug-and-play board delivered with factory jumper/switch settings are considered standard for the type of device(s) it supports. These are usually safe settings for basic systems. However, as devices upgrade continues, resource issues become more complex.

To avoid conflicts,

- verify current system resources before installing the board
- make sure the factory default settings of the board do not conflict with other existing devices resource settings in the system. If conflict occurs, reset the jumper setting of the board.

Currently AT/Pentium computers support 16 IRQs—but they are not all available to you! Some are reserved for system use, some have been reserved for standard installed devices such as mouse, fax/modem, printer, sound card, etc., leaving only the high IRQs (IRQ10 or above) for further expansion needs (which conventional boards don't support!).

To take advantage of the latest computer technology, SIIG offers High-IRQ and Multi-COM-Port I/O cards that provide maximum upgrade and expansion flexibility. When you need to add new devices such as a serial label printer, network card or second disk drive controller... the high IRQ level support allows you to do it. The same holds true for the Multi-COM-Port feature. Instead of the conventional COM ports (COM 1-4), up to 12 COM ports can be supported! These boards are designed to provide the greatest flexiblity for your future expansion needs!

2-1.1 I/O Port Address

Every I/O port uses an I/O address to communicate with the system. Considering future system expansion needs and possible I/O address conflicts, an I/O board that supports more than conventional I/O addresses is strongly recommended. The following table lists the conventional I/O addresses:

Port	Base I/O address
COM1	3F8h
COM2	2F8h
COM3	3E8h
COM4	2E8h
LPT1	3BCh or 378h
LPT2	378h or 278h
LPT3	278h only

2-1.2 Interrupt Requests (IRQ)

Hardware devices use interrupt request (IRQ) channels to signal the motherboard that a request must be fulfilled. **IRQ usually cannot be shared.** Considering future system expansion needs and possible IRQ conflicts, an I/O board supports high-IRQ is strongly recommended. The following table lists the 16 IRQs supported by the 16-bit ISA bus:

IRQ	Standard Function	Card Type
0	Timer Click	—
1	Keyboard	—
2	Second IRQ Controller Cascade	—
3	Serial Port 2 (COM2: COM4:)	8/16-bit
4	Serial Port 1 (COM1: COM3:)	8/16-bit
5	Sound/Parallel Port 2 (LPT2:)	8/16-bit
6	Floppy Disk Controller	8/16-bit
7	Parallel Printer Port LPT1:	8/16-bit
8	Real-Time Clock	—
9	Redirected as IRQ2*	8/16-bit
10	Available	16-bit
11	Available	16-bit
12	Available/PS/2 Mouse	16-bit
13	Math Coprocessor	—
14	Primary IDE HDD	16-bit
15	Available/Secondary IDE HDD	16-bit

* *Any device set to IRQ2 is actually using IRQ9.*

Note IRQs 0, 1, 2, 8 and 13 are reserved for system use; IRQs 10, 11, 12, 14 and 15 require 16-bit devices.

2-1.3 Direct Memory Access (DMA)

High-speed communications devices that send and receive information at high speed, such as sound cards and SCSI adapters, use DMA channels. DMA channels can sometimes be shared if the same DMA is never used simultaneously.

The following table lists the eight supported DMA channels:

DMA	Standard Function	Transfer
0	System reserved	8-bit
1	Available/Sound Card	8-bit
2	Floppy Disk Controller	8-bit
3	Available	8-bit
4	First DMA Controller Cascade (not usable)	
5	Available/Sound Card	16-bit
6	Available	16-bit
7	Available	16-bit

Note DMA 0 is not available in Windows 95/98 as manual assignment.

2-2 Configuring I/O Ports in Windows 95/98

The Windows 95/98 allows you to easily determine the current resource status, plus manually install and verify new device resource settings for proper operation.

The following outlines the steps to install a device:

1. Verify Current System Resources

a. Starting from the main desktop, double-click on ***My Computer / Control Panel / System / Device Manager.***

Click on the ***Print*** button to print out a Resource Summary Report. Or,

Click on ***Properties*** button to display the current resources used in the system under the ***View Resources*** tab.

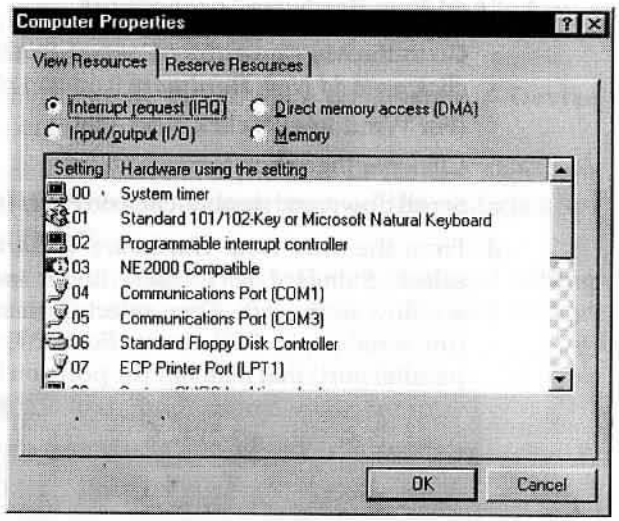


Figure 2-1

- Select the ***Interrupt request (IRQ)*** option to display the IRQs in use.
- Select the ***Input/output (I/O)*** option to display addresses in use.
- Select ***Direct memory access (DMA)*** to view the DMAs in use.

Resources NOT listed are available resources for manual assignment (see **Figure 2-1**).

b. Exit Windows and turn the system off.

2. Reconfigure the on-board default jumper setting according to available system resources (refer to Chapter 3 for alternate jumper setting if necessary).

3. Install the board and restart the system

4. "Add New Hardware" procedures

a. Go to the ***My Computer / Control Panel*** and double-click on ***Add New Hardware*** icon and click ***Next***.

(For Windows 98, click ***Next*** again)

b. Click ***No*** then click ***Next***.

c. Scroll down and double-click on ***Ports [COM & LPT)***.

d. From the ***Add New Hardware Wizard*** dialog box, select *Standard port types* under ***manufacturer*** window in the left. Then select *Communications port* (for serial port); *ECP Printer Port* or *Printer port* (for parallel port) that matches the port you have installed under ***model*** window in the right accordingly. Click ***Next***. (See **Figure 2-2**)

Note Select *ECP Printer Port* only if DMA is assigned.

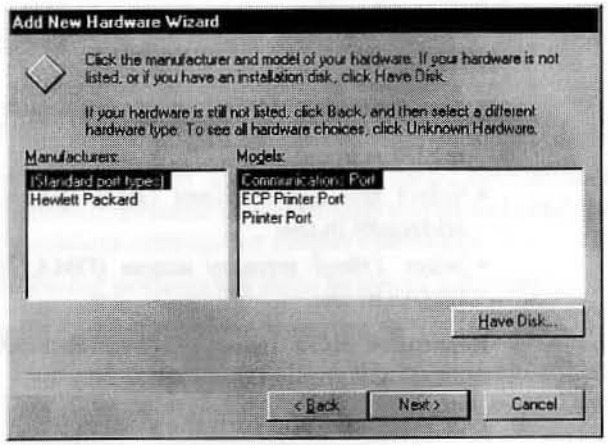


Figure 2-2

e. Click ***Next, Next*** then ***Finish*** respectively.

Note Disregard the screen displaying the default I/O address assigned by the Windows

f. Select ***No*** to NOT shut down.

5A. Verify and/or reconfigure serial port settings (Skip to **Step 5B** for parallel port setup procedures)

a. From **Control Panel**, click on **System / Device Manager.**

b. Double click on ***Ports [COM & LPT]***, then high-light the new communication port added and click on ***Properties.***

c. Click on ***Resources*** tab. If the displayed setting matches the board setting, select **OK** and skip to ***step f.*** If not, continue to ***step d.***

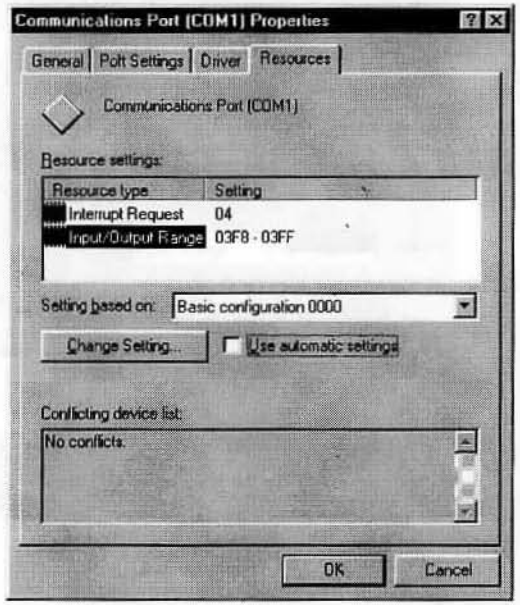


Figure 2-3

d. Uncheck ***Use automatic settings*** check box (see **Figure 2-3**).

- Highlight "**Input/Output Range**", then click on ***Change Setting***. If a message *"This resources setting cannot be modified"* is displayed, select another ***Basic Configuration*** and click on ***Change Setting*** again until the **Edit Input/Output Range** dialog box will appear.
- From the **Edit Input/Output Range** dialog box, select the I/O port address to match the board setting in the "**Value**" drop-down box. (see **Figure 2-4**)

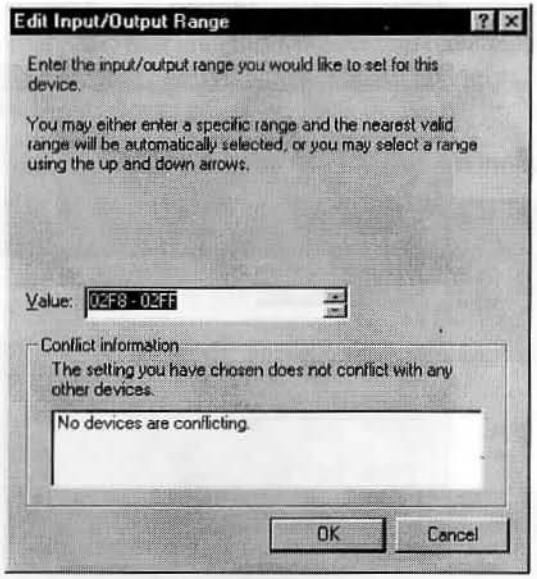


Figure 2-4

e. Repeat ***step d*** to verify and (if necessary) to change the **Interrupt Request** setting.

f. Restart the system.

Note Repeat ***step 4*** to ***5A*** for each additional serial port added to the system.

5B. Verify and/or reconfigure parallel port settings

a. From **Control Panel**, click on **System / Device Manager**.

b. Double click on ***Ports [COM & LPT]***, then high-light the new parallel port added and click on ***Properties***.

c. Click on ***Resources*** tab. If the displayed setting matches the board setting, select **OK** and skip to ***step f***. If not, continue to ***step d***.

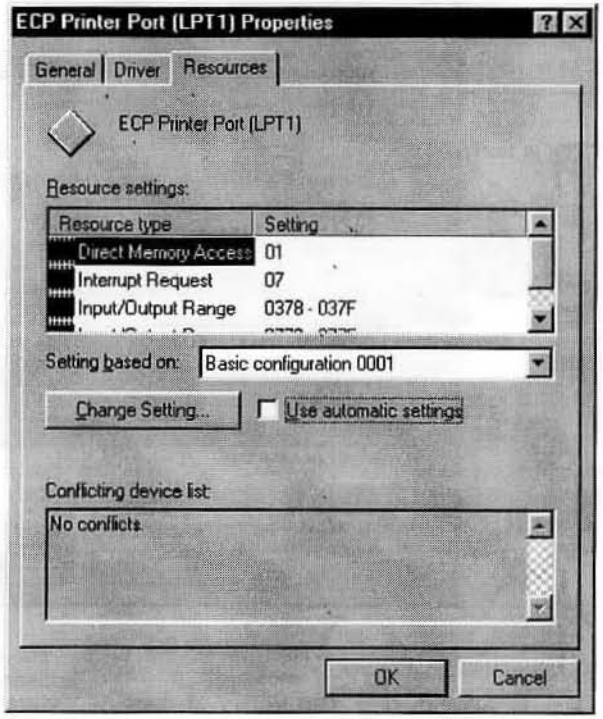


Figure 2-5

d. Uncheck ***Use automatic settings*** check box (see **Figure 2-5**).

- Select the ***Basic Configuration*** to display all the resource types assigned for the port i.e. I/O, IRQ and DMA. (DMA is assigned only when ECP Printed Port is selected)
- Highlight "**Input/Output Range**", then click on ***Change Setting*** to open the **Edit Input/Output Range** dialog box.
- From the **Edit Input/Output Range** dialog box, select the I/O port address to match the board setting in the "**Value**" drop-down box. (see **Figure 2-6**)

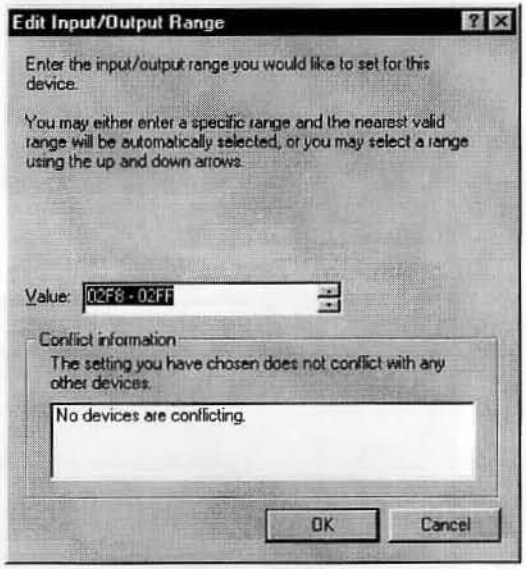


Figure 2-6

e. Repeat ***step d*** to verify and (if necessary) to change the **Interrupt Request** and **DMA** setting.

f. Restart the system.

Note Repeat ***steps 4*** and ***5B*** for each additional parallel port added to the system.

Chapter 3
Installation

This chapter will guide you through the installation of your *SI-1132+*. It includes instructions on how to:

- properly configure the jumpers on your board
- install the *SI-1132+* in the computer

3-1 Board Layout

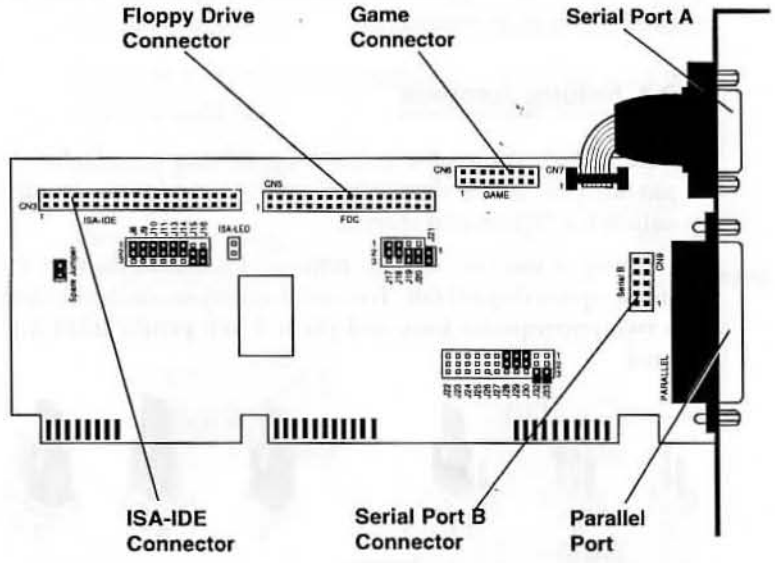


Figure 3-1. *SI-1132+* Board Layout

3-2 Configuring the *SI-1132+*

> **!!! IMPORTANT !!!**
>
> Prior to installing the *SI-1132+*, please review *Chapter 2 Verifying and Configuring System Resources* to ensure that the factory default settings (I/O address and IRQ) are different from any other existing devices in your system. **A conflict results when more than one devices use the same system resource.** Also, *Chapter 2* explains how to configure the serial and parallel ports in Windows 95/98.

Refer to the following sections for alternate jumper setting to reset the board, if needed.

3-2.1 Setting Jumpers

Figure 3-2 illustrates the installed positions on a 2-pin or 3-pin jumper. It also shows the non-jumpered position and position for convenient storing.

To change a jumper, simply remove a selected jumper by pulling up on its pull tab. To install a jumper, center it over the two appropriate pins and push down gently until it is seated.

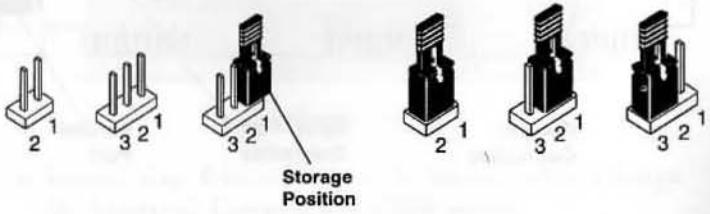


Figure 3-2. Jumper Positions

3-2.2 Default Jumper Settings

The following table and figure identify the default jumper settings:

Description	Jumper	Setting
ISA-IDE Enable/Disable:	J14	Enable
ISA-IDE Primary/Secondary Addr:	J16	Primary
ISA-IDE IRQ:	J15	IRQ14
FDD Enable/Disable:	J13	Enable
Game Port Enable/Disable:	J21	Enable
Serial Port A COM Port Address:	J19, J20	COM1
Serial Port A IRQ:	J28	IRQ4
Serial Port B COM Port Address:	J17, J18	COM2
Serial Port B IRQ:	J29	IRQ3
Parallel Port Mode:	J10, J11	EPP
LPT Parallel Port Address:	J8, J9	378h
Parallel Port IRQ:	J30	IRQ7
DMA Selection:	J32, J33	Not selected

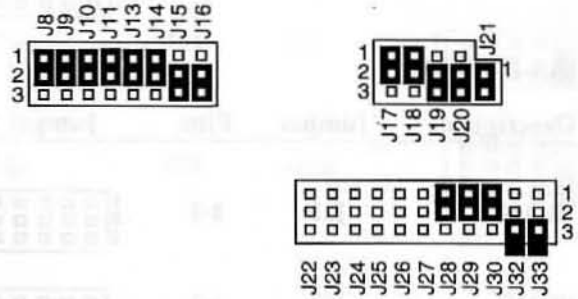
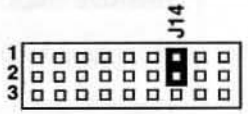
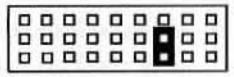


Figure 3-3. Default Jumper Settings

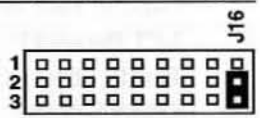
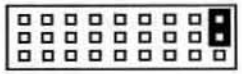
3-2.3 ISA-IDE Controller Port

The ISA-IDE controller port (CN3) is factory **enabled** as **primary** disk controller port with **IRQ14**. If you need to change these settings, reset jumpers J14, J16 and J15 respectively.

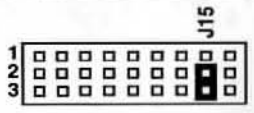
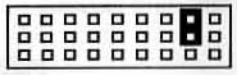
ISA-IDE - Enable/Disable

Description	Jumper	Pins	Jumper Setting
Enable*	**J14**	**1-2**	
Disable	J14	2-3	

ISA-IDE - Primary/Secondary

Description	Jumper	Pins	Jumper Setting
Primary*	**J16**	**2-3**	
Secondary	J16	1-2	

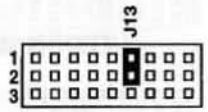
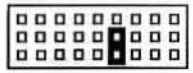
ISA-IDE - IRQ

Description	Jumper	Pins	Jumper Setting
IRQ14*	**J15**	**2-3**	
IRQ15	J15	1-2	

*= *Factory Default*

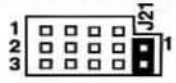
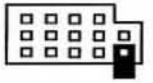
3-2.4 Floppy Disk Drive Controller Port

The ISA-IDE controller port (CN5) is factory configured as **enabled**. If you need to change this setting, reset jumpers J13.

Description	Jumper	Pins	Jumper Setting
Enable*	**J13**	**1-2**	
Disable	J13	2-3	

3-2.5 Game Port

If you intend to use the game port (CN6), you must install the connector bracket which comes with the board. The game port is factory configured as **enabled**. If you need to change this setting, reset jumper J21.

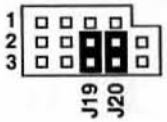
Description	Jumper	Pins	Jumper Setting
Enable*	**J21**	**1-2**	
Disable	J21	n/a	

*= *Factory Default*

3-2.6 Serial Port A

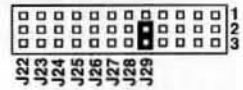
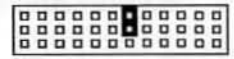
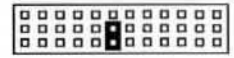
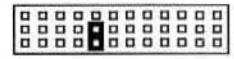
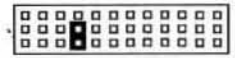
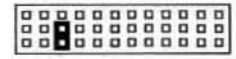
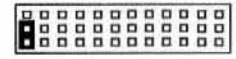
The serial port A (CN7) provides a DB9 (9-pin) connector mounted on the board. It is factory set as **COM1 (3F8h)** and **IRQ4**. If you need to change these settings, refer to the following illustration to reset the jumpers accordingly.

I/O Port Address

Description	Jumper	Pins	Jumper Setting
COM 1*	**J19**	**2-3**	
	J20	**2-3**	
COM 3	J19	1-2	
	J20	1-2	
Disable	J19	1-2	
	J20	2-3	

*= *Factory Default*

Interrupt Request

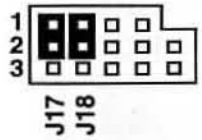
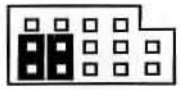
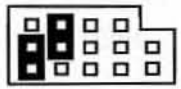
Description	Jumper	Pins	Jumper Setting
IRQ3	J29	2-3	
IRQ4*	**J28**	**1-2**	
IRQ5	J27	2-3	
IRQ7	J26	2-3	
IRQ9	J25	2-3	
IRQ10	J24	2-3	
IRQ11	J23	2-3	
IRQ12	J22	2-3	

*= *Factory Default*

3-2.7 Serial Port B

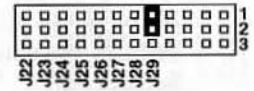
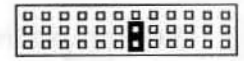
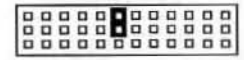
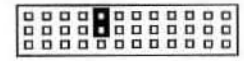
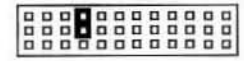
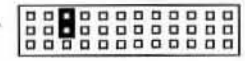
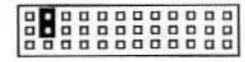
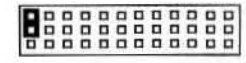
If you intend to use serial port B (CN9), you must install the connector bracket which comes with the board. The serial port B is factory set as **COM2 (2F8h)** and **IRQ3**. If you need to change these settings, refer to the following illustration to reset the jumpers accordingly.

I/O Port Address

Description	Jumper	Pins	Jumper Setting
COM 2*	**J17**	**1-2**	
	J18	**1-2**	
COM 4	J17	2-3	
	J18	2-3	
Disable	J17	2-3	
	J18	1-2	

*= *Factory Default*

Interrupt Request

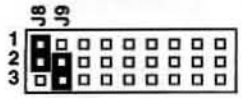
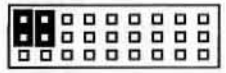
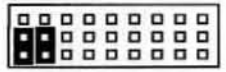
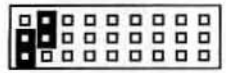
Description	Jumper	Pins	Jumper Setting
IRQ3*	**J29**	**1-2**	
IRQ4	J28	2-3	
IRQ5	J27	1-2	
IRQ7	J26	1-2	
IRQ9	J25	1-2	
IRQ10	J24	1-2	
IRQ11	J23	1-2	
IRQ12	J22	1-2	

*= *Factory Default*

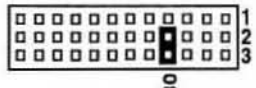
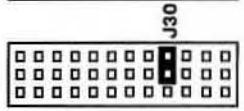
3-2.8 Parallel Port

The parallel port (CN10) provides a DB25 (25-pin) connector mounted on the board. It is factory set as I/O port address **378h, IRQ7** and **EPP mode**. If you need to change these settings, refer to the following illustration to reset the jumpers accordingly.

I/O Port Address

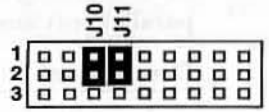
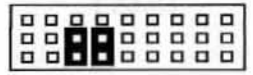
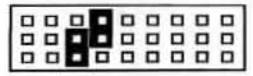
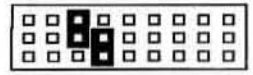
Description	Jumper	Pins	Jumper Setting
3BCh	J8 J9	1-2 2-3	
378h*	**J8** **J9**	**1-2** **1-2**	
278h	J8 J9	2-3 2-3	
Disable	J8 J9	2-3 1-2	

Interrupt Request

Description	Jumper	Pins	Jumper Setting
IRQ 5	J30	2-3	
IRQ 7*	**J30**	**1-2**	

*= *Factory Default*

Port Mode

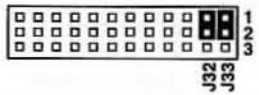
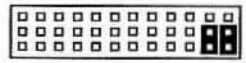
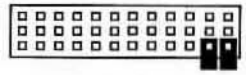
Description	Jumper	Pins	Jumper Setting
EPP*	**J10** **J11**	**1-2** **1-2**	
ECP/EPP	J10 J11	2-3 2-3	
SPP	J10 J11	2-3 1-2	
Disable	J10 J11	1-2 2-3	

Note If ECP/EPP mode is selected, DMA needs to be assigned. Also, if either EPP or ECP/EPP mode is selected, the I/O address 3BCh cannot be used.

*= *Factory Default*

DMA Channel

DMA channels are used for high speed communication devices. Assign a DMA channel only when you set the parallel port mode as **ECP/EPP** mode.

Description	Jumper	Pins	Jumper Setting
DMA 1	J32	1-2	
	J33	1-2	
DMA 3	J32	2-3	
	J33	2-3	
Not selected*	**J32**	**n/a**	
	J33	**n/a**	

*= *Factory Default*

3-3 Installing the *SI-1132+*

General instructions for installing the board are given since the design of computer chassis varies. Refer to your computer's reference manual for information on removing the computer cover.

1. Turn OFF the power to your computer and any other connected peripheral devices.
2. Unplug the power cord from the back of the computer.
3. Remove your computer's cover by removing its mounting screws and sliding off the cover.
4. Select an available 16-bit ISA slot for the board and an adjacent slot for installing the connector bracket.
5. Remove the slot bracket by unscrewing the holding screw and sliding it out. Save this screw for securing the board after it is installed. Follow the same procedure for the connector bracket.

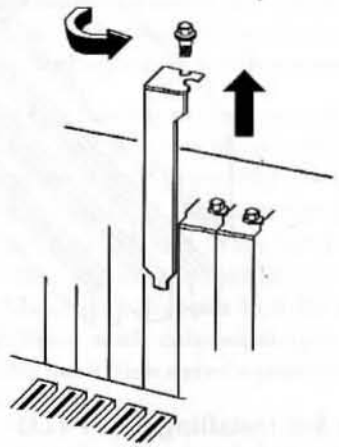


Figure 3-4. Remove the Slot Bracket

6. To install the *SI-1132+*, carefully align the board's bus connector to the expansion slot on the motherboard. Push the board down firmly, but gently, until it is well seated.
7. To install the connector bracket, carefully slide it into the selected slot where the slot bracket had been removed.

Note Hold the board by its external edges only. Try to avoid touching the components, connectors or pins.

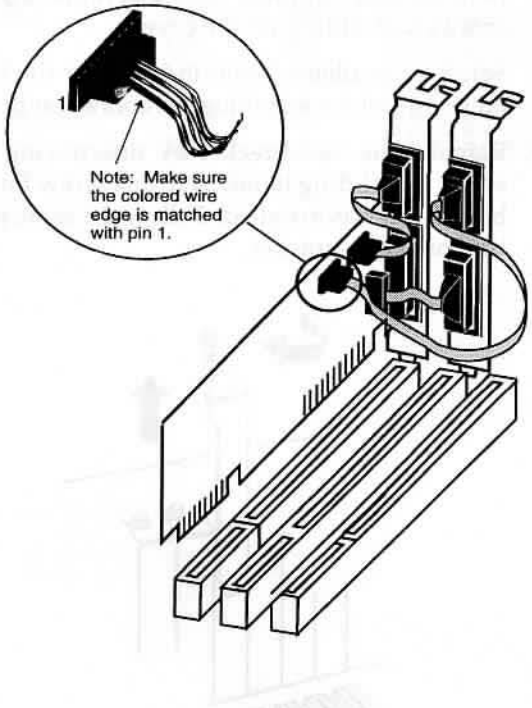


Figure 3-5. Installing the *SI-1132+* and Connector Bracket

8. Replace the slot bracket holding screws to secure the board and the connector bracket to the rear slot panel.
9. Connect the connectors of the bracket's cable to the on-board connector. **Make sure pin 1 of the ribbon cable (the side imprinted with color stripe) is matched with pin 1 of the on-board connector (indicated by a silk screened number 1).**

3-4 Connecting the Drives

If you have another hard disk controller in your computer, it is recommended that you remove it. There is no guarantee that the *SI-1132+* will operate properly if both controllers are enabled in the system.

3-4.1 IDE Drive Connection

1. Attach the 40-pin ribbon cable that comes with the *SI-1132+* to the on-board connector **ISA-IDE(CN3). Make sure pin 1 of the ribbon cable (the side imprinted with color stripe) is matched with pin 1 of the on-board connector (indicated by a silk screened number 1).**
2. Install the hard drive in the computer and attach the other end of the 40-pin ribbon cable to the connector edge of the hard disk drive. Note that the ribbon cable has two connectors. If you have one drive, connect the last connector on the end to the hard drive (drive C). If you have two drives, the middle connector attaches to drive D. **Make sure that pin 1 on the ribbon cable (the side imprinted with colored stripe) is matched with pin 1 on the hard disk drive's connector when making the connections.**
3. If your computer has a hard disk activity LED, attach the connecting LED wire to the **ISA-LED** 2-pin connector.

3-4.2 Floppy Disk Drive Connection

1. If you have another floppy disk controller in your computer, you may experience address conflicts between the controllers. Either remove the existing floppy controller or disable either controller.
2. Attach the 34-pin ribbon cable that comes with the *SI-1132+* to the on-board **FDC** connector. **Make sure pin 1 of the ribbon cable (the side imprinted with color stripe) is matched with pin 1 of the on-board connector (indicated by a silk screened number 1).**
3. Install the floppy drive in the computer and attach the other end of the 34-pin ribbon cable to the connector edge of the floppy disk drive. Note that the ribbon cable has two groups of double connectors.

   If you have one drive, use either one of the last group of connectors to connect to drive (drive A). If you have two floppy drives, use either one of the middle group connectors to attach to drive B.

   Make sure that pin 1 on the ribbon cable (the side imprinted with colored stripe) is matched with pin 1 on the floppy drive's connector when making the connections.

After making all your internal connections, replace the computer's cover and screws. Then reconnect all power cords and cables to the back of the computer and make any new connections to the *SI-1132+*'s ports.

The *SI-1132+* is now installed. Since system BIOS feature varies, if you have installed new disk drives, you may need to run the computer's CMOS SETUP program to identify the types of drives are connected. Also, most computers will display a system configuration table, including port addresses when powered on or rebooted. Reboot your system after running CMOS SETUP and verify that the system configuration are set properly. (Refer to the motherboard's manual for more information on running the CMOS SETUP)

The hardware installation has now been completed.

Chapter 4
Technical Support

4-1 Overview

This chapter will give you instructions on how to obtain product information, contact technical support, and return defective product. This user's manual is written with easy-to-understand instructions on how to configure and install the card in your system. We encourage you to consult this manual as your first step for technical assistance.

There are several steps you can take should you find problems with your card. It is most helpful if you consult the following resources:

1. Chapter 2 & 3 in this user's manual
2. Web Site (Section 4-2)
3. Technical Support Department (Section 4-3)
4. Customer Service Department (Section 4-4)

4-2 Web Site

Visit SIIG's Web site for more product features, drivers updates, upgrade solutions, FAQs, and where-to-buy information. Your opinions of SIIG products are very important to us. Through your feedback, SIIG can continue to deliver quality, innovative products to you.

Web Site: www.siig.com

4-3 Technical Support Department

For additional support, SIIG's Technical Support Specialists are available from 8:00 a.m. to 5:00 p.m. Monday through Friday, Pacific Standard Time.

e-mail: support@siig.com
Telephone: (510) 353-7542

In order for SIIG's Technical Support to give you prompt service, you will need the following information about the card.

Part Number: SC-JKA052
Computer Configuration: _____

_____

_____

_____

_____

_____

Note Make sure you are ready with the part number and description of the problem, so the Technical Support Specialist can better help you.

4-4 Customer Service Department

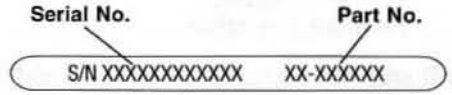
If the Technical Support Specialist determines that the card may be defective, you can return it for repair or replacement.

SIIG warrants to the original buyer of the card that the hardware is free of defects in materials and workmanship for a period of five years from the date of purchase. If your card fails to be in good working order during the warranty period, you may return it to SIIG for repair or replacement at SIIG's option.

To return the card you need to follow these steps.

Step 1: Call SIIG's Customer Service Department

Call the Customer Service Department at **(510) 657-8688 ext. 5333** for a Return Merchandise Authorization (RMA) number. **In order to get a RMA number, you must have your product serial number. The serial number is located on the side of the box it came in and on the back of the card.**



Step 2: Complete the RMA form

- Fill out your Return Merchandise Authorization (RMA) form, and include it in the package.
- Properly pack the card for shipping. All the materials that came with the original package should be included.
- Clearly write your RMA number on the outside of the returned shipping package and on the accompanying RMA form.

SIIG will refuse to accept any shipping package, and not be responsible for a product returned without a RMA number posted on the outside of the shipping carton.

Step 3: Ship the *SI-1132+*

You are responsible for the cost of shipping the card back to SIIG at the following address:

SIIG, Inc. RMA#_____
6078 Stewart Ave.
Fremont, CA 94538

SIIG will ship the repaired or replaced the board via UPS Ground or US Mail at no cost to you.

LIMITED 5 YEAR WARRANTY

The Company warrants to the original buyer of this product that the hardware is free of defects in materials and workmanship for a period of five years from the date of purchase from a reseller or dealer. Should this product fail to be in good working order during the warranty period, the Company, at its sole option, will repair or replace the defective product with an identical product or product having similar features and functionality as determined by the Company.

If the product has been modified without written approval by the Company, or the failure is a result of misuse, abuse or misapplication as determined by the Company, the warranty is void and the Company has no obligation to repair or replace the product.

The customer is responsible for properly packing the defective product for shipment and for the cost of shipping the product back to the Company. The Company will ship the repaired or replaced product via UPS Ground or US Mail at no cost to the customer.

At the request of the customer, the Company will ship the repaired or replaced product via a faster mode of shipment. The Company will pay for the cost of the shipping to return the product to the customer UP TO THE COST OF SHIPPING VIA UPS GROUND. The customer is responsible for any shipping charges above the cost of shipping via UPS Ground. This payment must be prepaid or included with the returned product, otherwise the Company will ship the repaired product COD for the amount of the additional costs.

Before returning a product for repair or replacement, you must first obtain a Return Merchandise Authorization (RMA) number from the Company's RMA Department by calling (510) 413-5333. To verify that the product is within the five year warranty period, the customer must provide proof of purchase to the Company when requesting a return authorization. The RMA number should be clearly displayed on the outside of the returned package and on the accompanying RMA form. The Company will refuse any package without a RMA number.

Under no circumstance will the Company be liable for any direct, indirect, consequential or incidental damages arising out of the use or inability to use the Company's products. Some states do not allow the exclusion or limitation of liability for consequential or incidental damages, so the above limitations may not apply. The Company reserves the right to make modifications in both hardware and software without prior notification.

Tear off and return bottom portion.

RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

RMA Number:_____ Date:____/____/____

Name:_____

Company:_____

Address:_____

City:_____ State:_____ Zip:_____

Phone Number: (_____)_____

Product Name/Model:_____ Purchase Date:____/____/____

Serial Number:_____

Problem(s) (please be specific): _____

_____

_____

_____

_____

Please check additional items that you are returning (if applicable):

☐ original package ☐ manual(s) ☐ software

☐ accessories:_____