GS-SR 125E
Rack Mount Server
System
Installation Guide

Contents

⚠️ **The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information contained herein. Third-party brands and names are the property of their respective owners.**

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⚠️ **Please do not remove any labels on server system, this may void the warranty of this server.**

⚠️ **Due to rapid change in technology, some of the specifications might be out of date before publication of this booklet.**

1. Safe, Care and Regulatory Information

<u>Important safety information</u>

Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.

- The product should be operated only from the type of power source indicated on the rating label.

- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.

- The plug-socket combination must be accessible at all times because it serves as the main disconnecting device.

- All product shipped with a three-wire electrical grounding-type plug only fits into a grounding-type power outlet. This is a safety feature. The equipment grounding should be in accordance with local and national electrical codes. The equipment operates safely when it is used in accordance with its marked electrical ratings and product usage instructions

- Do not use this product near water or a heat source.

- Set up the product on a stable work surface or so as to ensure stability of the system.

- Openings in the case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space around the system for ventilation when you set up your work area. Never insert objects of any kind into the ventilation openings.

- To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before removing covers.

- Allow the product to cool before removing covers or touching internal components.

Precautions for Products With Laser Devices

Observe the following precautions for laser devices:

■ Do not open the CD-ROM drive, make adjustments, or perform procedures on a laser device other than those specified in the product's documentation.

■ Only authorized service technicians should repair laser devices.

Precautions for Products With Modems, Telecommunications, or Local Area Network Options

Observe the following guidelines when working with options:

■ Do not connect or use a modem or telephone during a lightning storm. There may be a risk of electrical shock from lightning.

■ To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

■ Do not plug a modem or telephone cable into the network interface controller (NIC) receptacle.

■ Disconnect the modem cable before opening a product enclosure, touching or installing internal components, or touching an uninsulated modem cable or jack.

■ Do not use a telephone line to report a gas leak while you are in the vicinity of the leak.

Federal Communications Commission (FCC) Statement

Note: 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 when the equipment is operated in a commercial environment. This equipment

generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Neither the provider nor the manufacturer are responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

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 part 68 (applicable to products fitted with USA modems)

The modem complies with Part 68 of the FCC Rules. On this equipment is a label that contains, among other information, the FCC registration number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.
If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify in advance. But, if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.
Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect proper operation of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.
The FCC prohibits this equipment to be connected to party lines or coin-telephone service.

The FCC also requires the transmitter of a FAX transmission be properly identified (per FCC Rules Part 68, Sec. 68.381 (c) (3)).

/ for Canadian users only /

Canadian Department of Communications Compliance Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

DOC notice (for products fitted with an Industry Canada-compliant modem)

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user satisfaction.

Before installing this equipment, users ensure that it is permissible to be connected to the facilities of the local Telecommunications Company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal

metallic water pipe system, if resent are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the Load Numbers of all the devices does not exceed 100.

/ for European users only /

2. Preface

This installation guide will assist you in installing all the essential components for rack mount server system. For your protection, please read and understand all of the safety and operating instructions regarding your Gigabyte Server and retain for future reference. The procedures in this guidebook assume that you are a system or network administrator experienced in installing similar hardware.

The user' s guide is organized as follows:

Chapter 3 **"Introduction"** provides the basic product information and the key features of the product.

Chapter 4 **"Contents Package"** lists the essential hardware installation components.

Chapter 5 **"System Installation Procedure"** provides the fully instructions for configuration hardware to your system.

3. Introduction

Welcome to the Gigabyte GS-SR125E Rack mount Server System Installation Guide. The guidebook provides instructions for configuration hardware for the GS-SR125E to your system.

In order to get the optimal usage of your server, please pay attention to the following tips:

- Go through the installation guide carefully before starting the system installation processes.
- Keep the system away from static and magnetic field.
- Do not apply any cleaning solutions directly to the system.

3.1. Feature of SCSI Model

The Gigabyte GS-SR125E is a rack-optimized server that offers superior performance and scalability to your networking system. It contains the several features that provide respective performance for your networking solutions. The key features of the server include:

Features	Description
Motherboard	● GA-8IPP533
Processor Supported	● Support Dual Intel XEON Prestonia processors up tp 3.06 GHz+ ● FSB 400/533Mhz
BIOS	● AMI BIOS with enhanced ACPI feature for PC99/Win98/ME/2000 compliance; Green, PnP, DMI, INT13 & Anti-Virus functions ● IDE #0-#3, SCSI, LS120, ZIP, and CD-ROM bootable. ● AC recovery ON/OFF control. ● Auto-detect & report system health status
Chipset	● Intel E7501 Chipset ● Intel MCH, ICH3 and P64H2
Memory Supported	● Support DDR memory up to 12GB ● DIMM socket x 6 ● 2 Channels; 266Mhz DDR, 3 REG. DIMM/Channel
Integrated SCSI Controller	● Adaptec 7902W/U320 Dual Channel SCSI Controller (Compliance design upgraded to 7902/U320) ● Zero Channel RAID
Integrated Intel® Network Adapter Features	● Supports Intel 82546EB Gigabit Ethernet LAN Controller (64bit/100MHz) ● Supports PxE, WOL, AFT, ALB, GEC/FEC

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Intelligent Management System	• Standard supports IPMI v 1.5 for system monitoring. • IPMI card: **GC-HP12E-Q**
Hot Swap Hard Disk Drive Bays	• Support 4 SCSI Ultra-320 Hot-Swap HDD
Mass Storage System	• Four low-profile shelves for hot-swappable drives • One standard FDD drive (Optional device) • One slim type CD-ROM drive
System Form Factor	• 1U, Rack-optimized design
I/O expansion slots	• 2 raisers cards to support 3 PCI expansion • First Raiser Card with 2 slots: Support PCI-X full-height/full-length 100MHz, Support PCI-X full-height/half-length 100MHz • Second Raiser Card with 1 slot: Support PCI low-profile 64-Bit/66MHz (ZCR)
Power supply	• Max.460W Power Supply W/PFC
Operating temperature	• 5 to 35º C

4. Contents Package

When opening the package, please ensure the system components are not damaged during the shipping. Using the following checklist to verify the contents. If any component is missing or damaged in the system, please contact your vendor immediately.

4.1. Component Content List For SCSI Model

- Chassis
- Power Supply (Installed)
- 8IPP533 Motherboard (Installed)
- Slim type CD-ROM drive (Installed)
- Four Hard Disk Drive Trays
- Two CPU heat sinks
- Two thumbscrews
- Driver and Application CD
- GS-SR125E System Installation Guidebook

5. System Installation Procedures

⚠️ Please remove the protective thin films (Top and bottom) from the system when installing.

5.2. Chassis Removal

Step 1. Push down the two buttons located at two sides of the chassis. (Fig-1)

| Figure 1 | Figure 2 |

Step 2.. Gently apply force to the indentures with your thumbs and push toward the chassis to remove the top cover. (Fig-2)

Step 3. After removing the top cover, you can install CPU and other essential components.

5.3. CPU Installation

Step 1. Please make sure the CPU type and speed that are supported by the motherboard.

Step 2. To Install the CPU(s), lift up the bar that located next to the socket. (Fig-3)
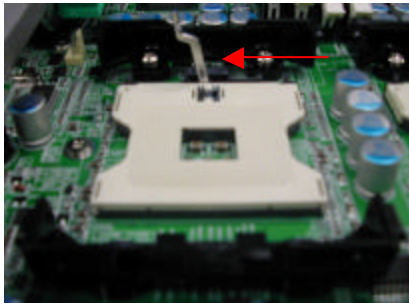
Figure 3

Step 3. The noticed corner should point toward the end of lever. The CPU will only fit in the orientation as shown. (Fig-4)
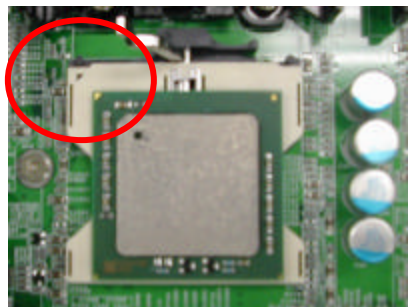
Figure 4

Step 4. Then, align the CPU insert it into the socket. (Fig-5) Push the lever back to the original position. (Fig-6)

Figure 5   Figure 6

5.4.   Heat Sink Installation

Step 1. Put the Heat sink on the CPU. (Fig-7)
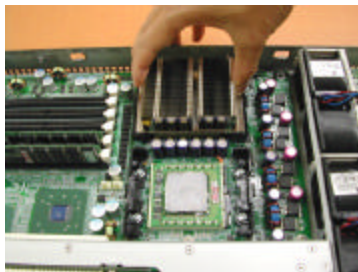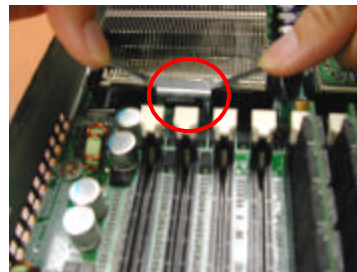
Figure 7   Figure 8

Step 2. There are for screws hold the retention modules. Seat the heat sink firmly in the retention modules with the two cooler brackets.

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Step 3. First, hook one end of the cooler bracket to the CPU socket as shown in the **Fig-8**. Make sure the middle part of bracket is push into the desired position. (Fig-8)

Step 5. Hook the other end of the cooler bracket by gripping it to another side of retention module. (Fig-9)
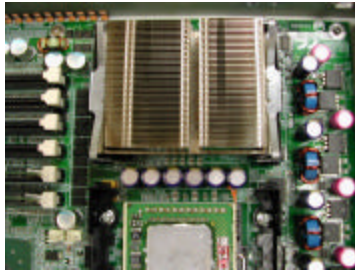
Figure 9

5.5.　　Memory Installation

The motherboard contains six DIMM (Dual Inline Memory Module) sockets. The systems BIOS will auto detect the size if the memory after installing. To install memory, simply push the memory modules into the DIMM sockets. (Fig -10 & 11)

Figure 10　　　　　　　　　　Figure 11

5.6.   PCI Expansion Card Installation

GS-SR125 provides expansion riser slots for two peripheral cards, 64Bit/66 MHz full-height. To install the peripheral, please go through the following steps.

Step 1. There are screws holding the riser bracket. Remove the screw on the top of the bracket.

Figure 12

Step 2. Pull the bracket straight up. (Fig-13)

Figure 13

Step 2. Installing the PCI Riser card. To install the riser card, just simply push it into the module. (Fig-14)
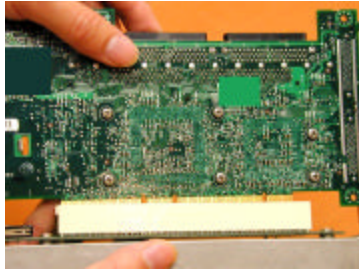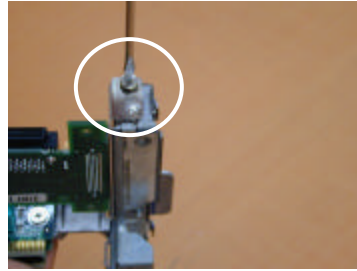
Figure 14   Figure 15

Step 3. Secure the card with screws. (Fig-15)

Step 4. Repeat **Step 2** to install another card. (Fig-16)

Step 5. Secure the card with screws. (Fig-17)
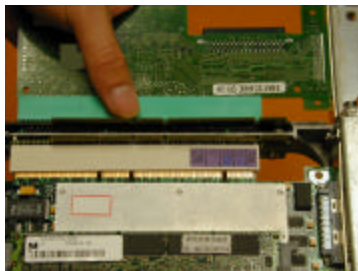
Figure 16   Figure 17

Step 6. Finally, align the stable racks to the system module, (see the arrow direction) and push down vertically to complete the installation. (Fig-18)
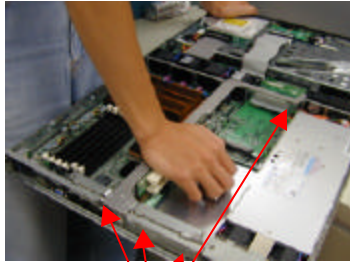
Figure 18

5.7.   Reinstall Top Cover

When complete the installation of the entire essential components (from subsection 5.1 to 5.7), replace the plastic air duct. This will secure the airflow is inside the chassis. Failure to do so may cause CPU and Memory over heating.

Replace top cover, insuring that the thumbscrews are tightened. (Fig-19)

Figure 19

5.8.   SCSI ID Setting (For SCSI Model ONLY)

The SCSI ID is shown in Figure 20. If there occurs an abnormal SCSI hard disk drive behavior (e.g. does not detect the hard disk drive properly), please make sure that the each HDD has different ID.
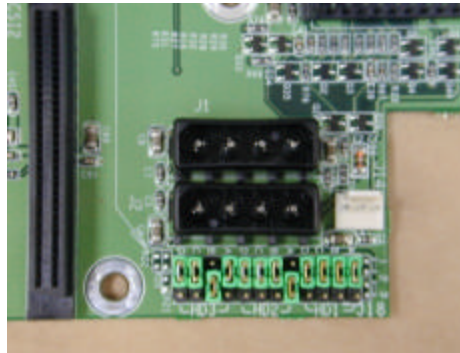
Figure 20

Jumper Setting For HD1, HD2, and HD3

ID ╲ Jumper	D	C	B	A
0	ON	ON	ON	ON
1	ON	ON	ON	OFF
2	ON	ON	OFF	ON
3	ON	ON	OFF	OFF
4	ON	OFF	ON	ON
5	ON	OFF	ON	OFF
6	ON	OFF	OFF	ON
7	ON	OFF	OFF	OFF
8	OFF	ON	ON	ON
9	OFF	ON	ON	OFF
A	OFF	ON	OFF	ON
B	OFF	ON	OFF	OFF
C	OFF	OFF	ON	ON
D	OFF	OFF	ON	OFF
E	OFF	OFF	OFF	ON
F	OFF	OFF	OFF	OFF

ON (Jumper Close): 1-2   OFF (Jumper Open): 2-3

5.9. Hard Disk Drive Installation

Step 1. Pull the hard disk drive tray handle and remove the tray from the chassis (Fig-21). Insert the hard disk drive into the tray. Secure each hard disk drive with screws (Fig-22 to 24).

Figure 21   Figure 22
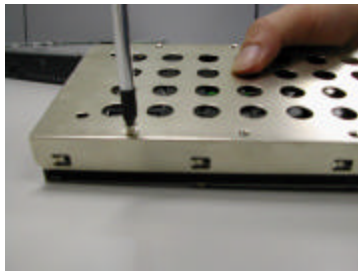
Figure 23   Figure 24

Step 2. After securing the hard disk drive with the screws, hold the hard drive handle at open position, place the tray into chassis (Fig-25) and push the hard disk drive tray handle to the closed position. (Fig-26)

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Figure 25   Figure 26

5.10. Motherboard Layout & Jumper Setting
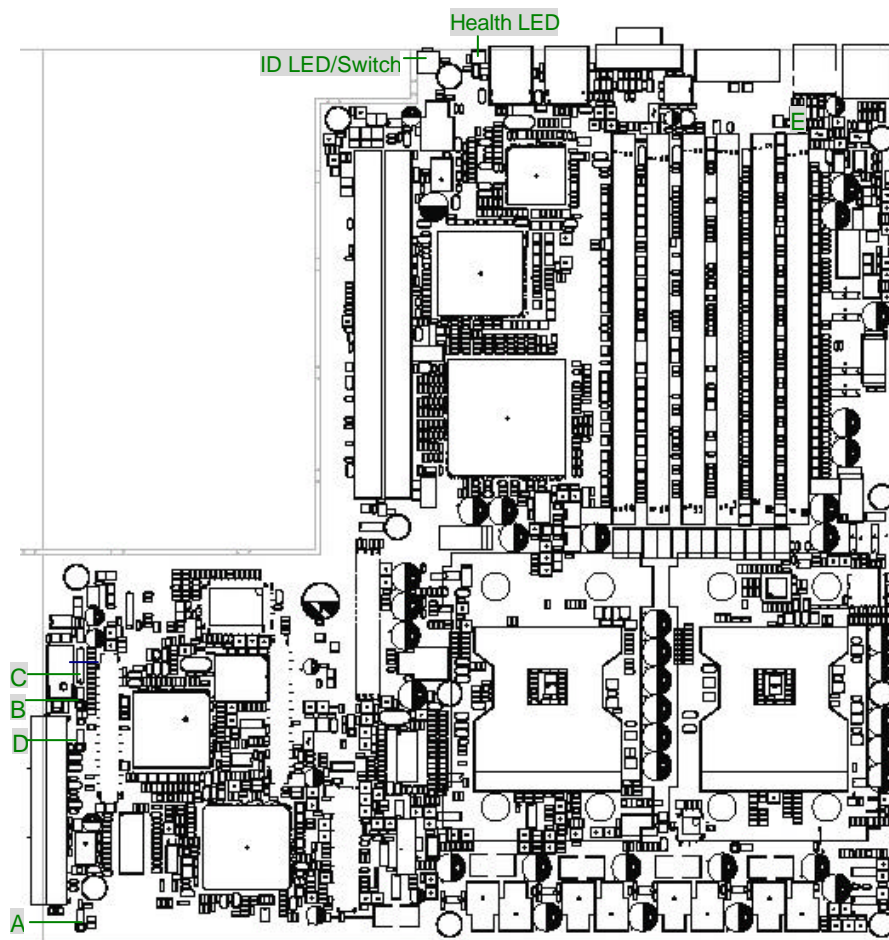
Jumper Setting Description:

A: CRL_CMOS (Clear CMOS)

1-2 Close: Clear CMOS

2-3 Close: Normal (Default Value)

B: JP8 (Onboard VGA Function)

1-2 Close: VGA Enabled (Default Value)

2-3 Close: Onboard VGA Disabled

C: JP2 (BIOS Block Write Protect)

1-2 Close: BIOS Top Block Write Protect
2-3 Close: BIOS 2-8 Block Write Protect

D: JP9 (Front USB Device Wake Up Function)

1-2 Close: Disable USB device Wake up Function (Default Value)

2-3 Close: Enable USB device Wake up Function
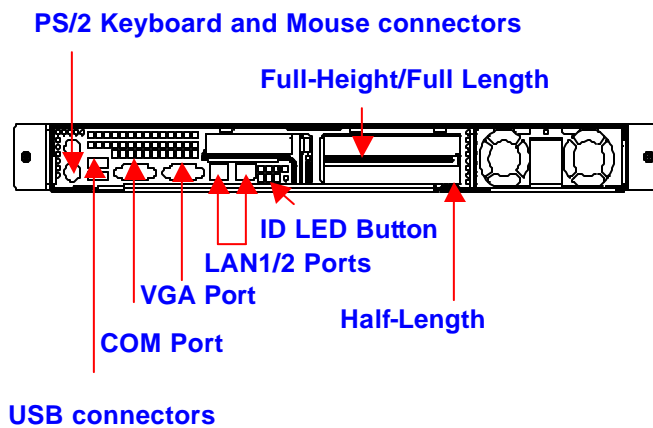
E: JP10 (Rear USB Device Wake Up Function)

1-2 Close: Disable USB device Wake up Function (Default Value)

2-3 Close: Enable USB device Wake up Function
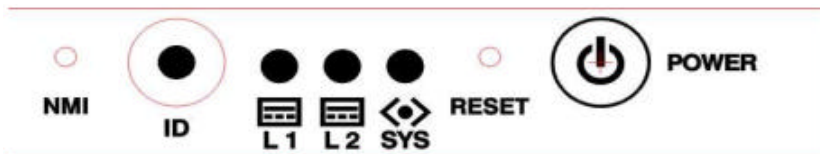
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5.11.　Appearance of GS-SR125E

5.11.1.　Front View of GS-SR125E

USB & LED

SCSI Ultra-160 Hot-Swap HDD

Manufacture

Option: Floppy

Disk/4th HDD tray
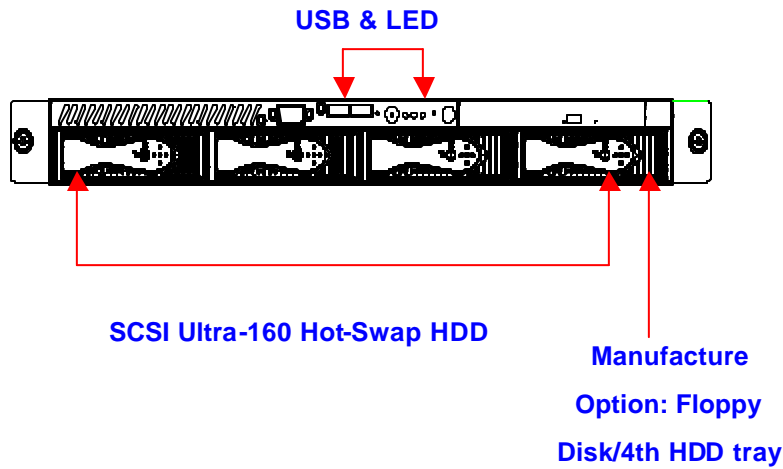
5.11.2.　Rear View of GS-SR125E

PS/2 Keyboard and Mouse connectors

Full-Height/Full Length

ID LED Button

LAN1/2 Ports

VGA Port

Half-Length

COM Port

USB connectors

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5.11.3. LED Indicator Description

	Acting	*Color*	*Status*
Power LED	On	Green	Power On
	On	Amber	Power cable plug-in
	Blink	Green	System stands by
	Off	N/A	No power

SYS LED	On	Amber	System is ready but degraded: some CPU Fault, DIMM Killed
			Critical Power Modules Failure, Critical FANs Failure, Voltage (Power Supply), Critical Temperature and Voltage
	Off	N/A	Non-critical temperature and voltage
LAN LED	On	Green	LAN online
	Off	N/A	LAN offline
	Blinking	Green	LAN acting
ID(SERVICE) LED	On	Blue	Identified by service people
	Off	N/A	N/A

HDD LED:

HDD LED 1

HDD LED 2

	Acting	*Color*	*Status*
HDD LED 1	Off	N/A	HDD Idle
HDD LED 1	Blink	Green	HDD Acting
HDD LED 2	Off	N/A	No error
HDD LED 2	On	Green	Faulty or rebuild stop
HDD LED 2	Slow Blink	Green	Rebuild
HDD LED 2	Fast Blink	Green	Identify

5.12. Floppy Drive Installation (Optional)

Step 1. Remove three screws on the front top cover, (Fig-28) Push down the two buttons located at two sides of the system to remove front top cover. (Follow the arrow direction shown in Fig-29)
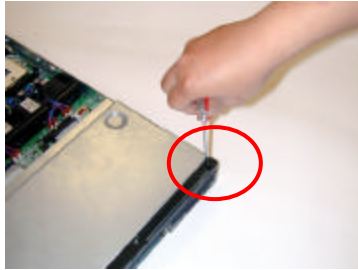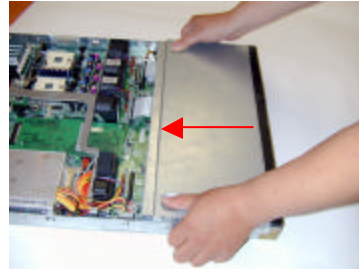
Figure 27   Figure 28

Step 2. Insert the floppy disk drive into the tray. Secure the floppy disk drive with screws (Fig-30). Connect cables to the floppy disk drive. (Fig-31)
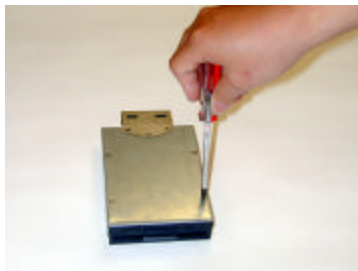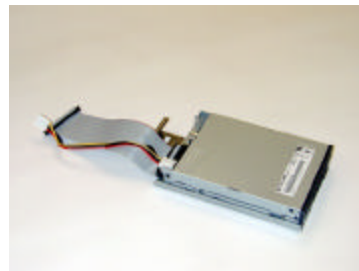

Figure 29   Figure 30

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Step 3. Place the tray into chassis (Fig-32) and push the floppy disk drive tray handle to the closed position.

Note: It will make "click" sound when the floppy disk drive is inserted properly

Figure 31   Figure 32

Step 4. Connect the floppy drive disk to the necessary cables and power. (Fig-33)

5.13.   Connector Icon Description

Suggested icons	Description
⌨	Keyboard
▭	VGA
🖱	Mouse
🖧	LAN
🖨	Parallel Port
▤	Serial Port
⎙	USB