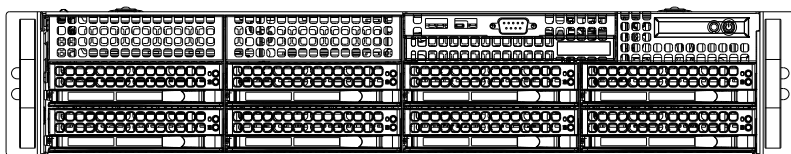




## SC825 CHASSIS SERIES



SC825B2TQC-R920W

SC825TQC-R1K03WB

SC825TQC-R740WB

SC825TQC-R1K03LPB

SC825TQ-R740WB

SC825TQC-R740LPB

SC825TQ-R740LPB

SC825TQ-R720LPB

SC825TQ-710LP

SC825TQC-600LPB

SC825TQ-600LPB

SC825TQC-600WB

SC835TQ-600WB

SC825TQ-563LPB

SC825TQ-R500WB

SC825BTQC-R1K23LPB

SC825BTQC-R609WB

SC825TQC-R609LPB

SC825TQC-R802LPB

SC825TQC-R802WB

## USER'S MANUAL

Revision 2.1



WIT Company – поставка серверов, СХД,  
сетевое оборудование, лицензионного ПО

[WIT.RU](http://WIT.RU)

The information in this User's Manual has been carefully reviewed and is believed to be accurate. The vendor assumes no responsibility for any inaccuracies that may be contained in this document, makes no commitment to update or to keep current the information in this manual, or to notify any person or organization of the updates. **Please Note: For the most up-to-date version of this manual, please see our web site at [www.supermicro.com](http://www.supermicro.com).**

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FCC Statement: This equipment has been tested and found to comply with the limits for a Class A 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 manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

California Best Management Practices Regulations for Perchlorate Materials: This Perchlorate warning applies only to products containing CR (Manganese Dioxide) Lithium coin cells. "Perchlorate Material-special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)"

**WARNING: Handling of lead solder materials used in this product may expose you to lead, a chemical known to the State of California to cause birth defects and other reproductive harm.**

Manual Revision 2.1

Release Date: January 21, 2022

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## Preface

### About this Manual

This manual is written for professional system integrators and PC technicians. It provides information for the installation and use of the chassis. Installation and maintenance should be performed by experienced technicians only.

This document lists compatible parts available when this document was published. Refer to the Supermicro web site for updates on supported parts and configurations.

This manual may be periodically updated without notice. Please check the Supermicro Web site for possible updates.

### Warnings

Special attention should be given to the following symbols used in this manual.



**Warning!** Indicates important information given to prevent equipment/ property damage or personal injury.



**Warning!** Indicates high voltage may be encountered when performing a procedure.

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## Notes



# Chapter 1

## Introduction

### 1-1 Overview

Supermicro's SC825 2U chassis features a unique and highly-optimized design. The chassis is equipped with high efficiency power supply.

### 1-2 Model List

Please visit the following link for the latest model list and part numbers for your particular chassis model [www.supermicro.com](http://www.supermicro.com)

SC825 Chassis			
Model	HDD	PCI Slots	Power Supply
SC825B2TQC-R920W	8x SAS3 / SATA	4x FH + 3x LP	920W (Platinum Level Redundant )
SC825TQC-R1K03LPB	8x SAS3 / SATA	7x LP	1000W (Titanium Level Redundant)
SC825TQC-R1K03WB	8x SAS3 / SATA	4x FH + 3x LP	1000W (Titanium Level Redundant)
SC825TQ-R740WB	8x SAS / SATA	4x FH + 3x LP	740W (Platinum Level Redundant)
SC825TQC-R740WB	8x SAS3 / SATA	4x FH + 3x LP	740W (Platinum Level Redundant)
SC825TQC-R740LPB	8x SAS3 / SATA	7x LP	740W (Platinum Level Redundant)
SC825TQ-R740LPB	8x SAS / SATA	7x LP	740W (Platinum Level Redundant)
SC825TQ-720LPB	8x SAS/SATA	7x LP	720W (Gold Level)
SC825TQ-710LPB	8x SAS / SATA	7x LP	710W
SC825TQC-600LPB	8x SAS3/SATA	7x LP	600W (Platinum Level)
SC825TQC-600WB	8x SAS3/SATA	4x FH + 3x LP	600W (Platinum Level)
SC825TQ-600WB	8x SAS/SATA	4x FH + 3x LP	600W (Platinum Level)
SC825TQ-600LPB	8x SAS/SATA	7x LP	600W
SC825TQ-563LPB	8x SAS/SATA	7x LP	560W
SC825TQ-R500WB	8x SAS/SATA	4x FF + 3x LP	500W (Platinum Level Redundant)
SC825BTQC-R1K23LPB	8x SAS/SATA	7x LP	1200W (Titanium Level Redundant)

Legend: FF: Full-height, full length, FH: Full-height, half length. LP: Low-profile, full-length. LP: Low-profile.

SC825 Chassis			
SC825BTQC-R609WB	8x SAS/SATA	4x FH + 3x LP	600W/650W (Platinum Level Redundant)
SC825TQC-R609LPB	8x SAS/SATA	7x LP	600W/650W (Platinum Level Redundant)
SC825TQC-R802LPB	8x SAS/SATA	7x LP	800W (Titanium Level Redundant)
SC825TQC-R802WB	8x SAS/SATA	4x FH + 3x LP	800W (Titanium Level Redundant)

Legend: FF: Full-height, full length, FH: Full-height, half length. LF: Low-profile, full-length. LP: Low-profile.

## 1-3 Chassis Features

The SC825 2U, high-performance chassis includes the following features:

### Hard Drives

The SC825 chassis features eight slots for SAS3 and SAS/SATA drives. These drives are hot-swappable. Once set up correctly, these drives can be removed without powering down the server. In addition, CSE-825B can support optional 2.5" hot-swap drive kit (MCP-220-82616-0N).

### PCI Expansion slots

Each SC825-LP chassis model includes seven low-profile I/O expansion slots. SC825-W supports four FH and three low-profile I/O expansion slots.

### Peripheral Drives

Each SC825 chassis supports one slim DVD-ROM drive and one slim USB/com port drive slot (optional). These drives allow you to quickly install or save data.

### Other Features

Other onboard features are included to promote system health. These include various three cooling fans, a convenient power switch, reset button, and five LED indicators.

## 1-4 Contacting Supermicro

### Headquarters

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Fax: +1 (408) 503-8008

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[support@supermicro.com](mailto:support@supermicro.com) (Technical Support)

Website: [www.supermicro.com](http://www.supermicro.com)

### Europe

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Email: [support@supermicro.com.tw](mailto:support@supermicro.com.tw)

Website: [www.supermicro.com.tw](http://www.supermicro.com.tw)

## 1-5 Returning Merchandise for Service

A receipt or copy of your invoice marked with the date of purchase is required before any warranty service will be rendered. You can obtain service by calling your vendor for a Returned Merchandise Authorization (RMA) number. When returning to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton, and mailed prepaid or hand-carried. Shipping and handling charges will be applied for all orders that must be mailed when service is complete.

For faster service, RMA authorizations may be requested online (<http://www.supermicro.com/support/rma/>).

Whenever possible, repack the chassis in the original Supermicro carton, using the original packaging material. If these are no longer available, be sure to pack the chassis securely, using packaging material to surround the chassis so that it does not shift within the carton and become damaged during shipping.

This warranty only covers normal consumer use and does not cover damages incurred in or from failure due to the alteration, misuse, abuse or improper maintenance of products.

During the warranty period, contact your distributor first for any product problems.

## Notes

## Chapter 2

# Standardized Warning Statements for AC Systems

### About Standardized Warning Statements

The following statements are industry standard warnings, provided to warn the user of situations which have the potential for bodily injury. Should you have questions or experience difficulty, contact Supermicro's Technical Support department for assistance. Only certified technicians should attempt to install or configure components.

Read this appendix in its entirety before installing or configuring components in the Supermicro chassis.

These warnings may also be found on our web site at [http://www.supermicro.com/about/policies/safety\\_information.cfm](http://www.supermicro.com/about/policies/safety_information.cfm).

### Warning Definition



**Warning!** This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

#### 警告の定義

この警告サインは危険を意味します。

人身事故につながる可能性がありますので、いずれの機器でも動作させる前に、電気回路に含まれる危険性に注意して、標準的な事故防止策に精通して下さい。

此警告符号代表危險。

您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾的声明号码找到此设备的安全性警告说明的翻译文本。

此警告符號代表危險。

您目前所處的工作環境可能讓您受傷。您使用任何設備之前，請注意觸電的危險，並且要熟悉預防事故發生的標準工作程序。請依照每一注意事項後的號碼找到相關的翻譯說明內容。

## Warnung

## WICHTIGE SICHERHEITSHINWEISE

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

BEWAHREN SIE DIESE HINWEISE GUT AUF.

## INSTRUCCIONES IMPORTANTES DE SEGURIDAD

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

GUARDE ESTAS INSTRUCCIONES.

## IMPORTANTES INFORMATIONS DE SÉCURITÉ

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

CONSERVEZ CES INFORMATIONS.

תקנון הצהרות אזהרה  
הצהרות הבאות הן אזהרות על פי תקני התעשייה, על מנת להזהיר את המשתמש מפני חבלה פיזית אפשרית. במידה ויש שאלות או היתקלות בבעיה כלשהי, יש ליצור קשר עם מחלקת תמיכה טכנית של סופרמיקרו. טכנאים מוסמכים בלבד רשאים להתקין. או להגדיר את הרכיבים יש לקרוא את הנספח במלואו לפני התקנת או הגדרת הרכיבים. במארזי סופרמיקרו



اَكْ فِي حَالَةٍ وُيِّي أَي تَتَسَبَّبُ فِ اصَابَةِ جَسَدِهِ هَذَا الزَّهْزَعُ خَطْرٌ .  
!تَحذِرُ

قَبْلَ أَي تَعُولُ عَلَى أَي هَعْدَاتٍ، يَكِي عَلَى عِلْنِ بِالْوِخَاظِ أَلِ أَجْوَةِ عِي  
الذَّوَائِزِ

الكهزبائِة

وَيَكِي عَلَى دَرَاةٍ بِالْوَوَارِسَاتِ الْقَائِةِ لَوْ عٌ وَقَعِ أَي حَادَثِ

استخدم رِقْنَ البِ إِي الوِصْصِ فِ هَاةِ كُلِّ تَحذِرُ لِلْعَبْرَةِ تَرْجُوهُمَا  
안전을 위하여

경고!

이 경고 기호는 위험이 있음을 알려 줍니다. 작업자의 신체에 부상을 야기 할 수 있는 상태에 있게 됩니다. 모든 장비에 대한 작업을 수행하기 전에 전기회로와 관련된 위험요소들을 확인하시고 사전에 사고를 방지할 수 있도록 표준 작업절차를 준수해 주시기 바랍니다.

해당 번역문을 찾기 위해 각 경고의 마지막 부분에 제공된 경고문 번호를 참조하십시오

## BELANGRIJKE VEILIGHEIDSINSTRUCTIES

Dit waarschuwings symbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij een elektrische installatie betrokken risico's en dient u op de hoogte te zijn van de standaard procedures om ongelukken te voorkomen. Gebruik de nummers aan het eind van elke waarschuwing om deze te herleiden naar de desbetreffende locatie.

BEWAAR DEZE INSTRUCTIES

## Installation Instructions



**Warning!** Read the installation instructions before connecting the system to the power source.

設置手順書

システムを電源に接続する前に、設置手順書をお読み下さい。

警告

将此系统连接电源前，请先阅读安装说明。

警告

將系統與電源連接前，請先閱讀安裝說明。

Warnung

Vor dem Anschließen des Systems an die Stromquelle die Installationsanweisungen lesen.

¡Advertencia!

Lea las instrucciones de instalación antes de conectar el sistema a la red de alimentación.

Attention

Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.

יש לקרוא את הוראות התקנה לפני חיבור המערכת למקור מתח.

اقر إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

시스템을 전원 에 연결하기 전에 설치 안내를 읽어주십시오.

Waarschuwing

Raadpleeg de installatie-instructies voordat u het systeem op de voedingsbron aansluit.

## Circuit Breaker



**Warning!** This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 20 A.

サーキット・ブレーカー

この製品は、短絡(過電流)保護装置がある建物での設置を前提としています。

保護装置の定格が250 V、20 Aを超えないことを確認下さい。

警告

此产品的短路(过载电流)保护由建筑物的供电系统提供,确保短路保护设备的额定电流不大于250V,20A。

警告

此产品的短路(過載電流)保護由建築物的供電系統提供,確保短路保護設備的額定電流不大於250V,20A。

Warnung

Dieses Produkt ist darauf angewiesen, dass im Gebäude ein Kurzschluss- bzw. Überstromschutz installiert ist. Stellen Sie sicher, dass der Nennwert der Schutzvorrichtung nicht mehr als: 250 V, 20 A beträgt.

¡Advertencia!

Este equipo utiliza el sistema de protección contra cortocircuitos (o sobrecorrientes) del edificio. Asegúrese de que el dispositivo de protección no sea superior a: 250 V, 20 A.

Attention

Pour ce qui est de la protection contre les courts-circuits (surtension), ce produit dépend de l'installation électrique du local. Vérifiez que le courant nominal du dispositif de protection n'est pas supérieur à :250 V, 20 A.

מוצר זה מסתמך על הגנה המותקנת במבנים למניעת קצר חשמלי.  
יש לוודא כי

המכשיר המגן מפני הקצר החשמלי הוא לא-20A, 60VDC  
יותר מ

هذا المنتج يعتمد على معدات الحماية مه الدوائر القصيرة التي تم  
تثبيتها في

المبنى

تأكد من أن تقييم الجهاز الوقائي ليس أكثر من : 20A, 250V

경고!

이 제품은 전원의 단락(과전류) 방지에 대해서 전적으로 건물의 관련 설비에 의존합니다. 보호장치의 정격이 반드시 250V(볼트), 20A(암페어)를 초과하지 않도록 해야 합니다.

#### Waarschuwing

Dit product is afhankelijk van de kortsluitbeveiliging (overspanning) van uw elektrische installatie. Controleer of het beveiligde apparaat niet groter gedimensioneerd is dan 220V, 20A.

### Power Disconnection Warning



**Warning!** The system must be disconnected from all sources of power and the power cord removed from the power supply module(s) before accessing the chassis interior to install or remove system components.



#### 電源切斷の警告

시스템 컴포넌트의取り付けまたは取り外しのために、シャーシ 내부에 액세스するには、

시스템의電源はすべてのソースから切斷され、電源コードは電源モジュールから取り外す必要があります。

#### 警告

在你打开机箱并安装或移除内部器件前，必须将系统完全断电，并移除电源线。

#### 警告

在您打開機殼安裝或移除內部元件前，必須將系統完全斷電，並移除電源線。

#### Warnung

Das System muss von allen Quellen der Energie und vom Netzanschlusskabel getrennt sein, das von den Spg.Versorgungsteilmodulen entfernt wird, bevor es

auf den Chassisinnenraum zurückgreift, um Systemsbestandteile anzubringen oder zu entfernen.

¡Advertencia!

El sistema debe ser disconnected de todas las fuentes de energía y del cable eléctrico quitado de los módulos de fuente de alimentación antes de tener acceso el interior del chasis para instalar o para quitar componentes de sistema.

Attention

Le système doit être débranché de toutes les sources de puissance ainsi que de son cordon d'alimentation secteur avant d'accéder à l'intérieur du chasis pour installer ou enlever des composants de système.

אזהרה מפני ניתוק חשמלי

אזהרה!

יש לנתק את המערכת מכל מקורות החשמל ויש להסיר את כבל החשמלי מהספק

לפני גישה לחלק הפנימי של המארז לצורך התקנת או הסרת רכיבים.

يجب فسم انظاو من جميع مصادر انطاقت وإزانت سهك انكهرباء من وحدة امداد

انطاقت قيم

انصل إني امناطق انداخهيت نههيكم نتشيج أو إزانت مكنناث الجهاز

경고!

시스템에 부품들을 장착하거나 제거하기 위해서는 새시 내부에 접근하기 전에 반드시 전원 공급장치로부터 연결되어있는 모든 전원과 전기코드를 분리해주어야 합니다.

Waarschuwing

Voordat u toegang neemt tot het binnenwerk van de behuizing voor het installeren of verwijderen van systeem onderdelen, dient u alle spanningsbronnen en alle stroomkabels aangesloten op de voeding(en) van de behuizing te verwijderen

## Equipment Installation



**Warning!** Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

### 機器の設置

トレーニングを受け認定された人だけがこの装置の設置、交換、またはサービスを許可されています。

### 警告

只有經過培訓且具有資格的人員才能進行此設備的安裝、更換和維修。

### 警告

只有經過受訓且具資格人員才可安裝、更換與維修此設備。

### Warnung

Das Installieren, Ersetzen oder Bedienen dieser Ausrüstung sollte nur geschultem, qualifiziertem Personal gestattet werden.

### ¡Advertencia!

Solamente el personal calificado debe instalar, reemplazar o utilizar este equipo.

### Attention

Il est vivement recommandé de confier l'installation, le remplacement et la maintenance de ces équipements à des personnels qualifiés et expérimentés.

### אזהרה!

צוות מוסמך בלבד רשאי להתקין, להחליף את הציוד או לתת שירות עבור הציוד

والمدربيه لتزكيب واستبدال أو خدمة هذا الجهاز يجب أن يسمح فقط للموظفيه المؤهليه

### 경고!

훈련을 받고 공인된 기술자만이 이 장비의 설치, 교체 또는 서비스를 수행할 수 있습니다.

### Waarschuwing

Deze apparatuur mag alleen worden geïnstalleerd, vervangen of hersteld door geschoold en gekwalificeerd personeel.

### Restricted Area



**Warning!** This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. (This warning does not apply to workstations).

### アクセス制限区域

このユニットは、アクセス制限区域に設置されることを想定しています。

アクセス制限区域は、特別なツール、鍵と錠前、その他のセキュリティの手段を用いてのみ出入りが可能です。

### 警告

此部件应安装在限制进出的场所，限制进出的场所指只能通过使用特殊工具、锁和钥匙或其它安全手段进出的场所。

### 警告

此裝置僅限安裝於進出管制區域，進出管制區域係指僅能以特殊工具、鎖頭及鑰匙或其他安全方式才能進入的區域。

### Warnung

Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Der Zutritt zu derartigen Bereichen ist nur mit einem Spezialwerkzeug, Schloss und Schlüssel oder einer sonstigen Sicherheitsvorkehrung möglich.

### ¡Advertencia!

Esta unidad ha sido diseñada para instalación en áreas de acceso restringido. Sólo puede obtenerse acceso a una de estas áreas mediante la utilización de una herramienta especial, cerradura con llave u otro medio de seguridad.

### Attention

Cet appareil doit être installée dans des zones d'accès réservés. L'accès à une zone d'accès réservé n'est possible qu'en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité.

אזור עם גישה מוגבלת  
אזהרה!

יש להתקין את היחידה באזורים שיש בהם הגבלת גישה. הגישה ניתנת בעזרת

'כלי אבטחה בלבד' (מפתח, מנעול וכד.).

تخصيص هذه انحدة نترك بُها ف مناطق محظورة تم .  
ممكن انصلل إن منطقت محظورة فقط من خلال استخداو أداة  
خاصت،

أو أ وس هُت أخري نلاأمما ققم ومفتاح

경고!

이 장치는 접근이 제한된 구역에 설치하도록 되어 있습니다. 특수 도구, 잠금 장치 및 키, 또는 기타 보안 수단을 통해서만 접근 제한 구역에 들어갈 수 있습니다.

#### Waarschuwing

Dit apparaat is bedoeld voor installatie in gebieden met een beperkte toegang. Toegang tot dergelijke gebieden kunnen alleen verkregen worden door gebruik te maken van speciaal gereedschap, slot en sleutel of andere veiligheidsmaatregelen.

### Battery Handling



**Warning!** There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions

#### 電池の取り扱い

電池交換が正しく行われなかった場合、破裂の危険性があります。交換する電池はメーカーが推奨する型、または同等のものを使用下さい。使用済電池は製造元の指示に従って処分して下さい。

#### 警告

電池更換不當會有爆炸危險。請只使用同類電池或製造商推薦的功能相當的電池更換原有電池。請按製造商的說明處理廢舊電池。

#### 警告

電池更換不當會有爆炸危險。請使用製造商建議之相同或功能相當的電池更換原有電池。請按照製造商的說明指示處理廢棄舊電池。



**Warnung**

Bei Einsetzen einer falschen Batterie besteht Explosionsgefahr. Ersetzen Sie die Batterie nur durch den gleichen oder vom Hersteller empfohlenen Batterietyp. Entsorgen Sie die benutzten Batterien nach den Anweisungen des Herstellers.

**Attention**

Danger d'explosion si la pile n'est pas remplacée correctement. Ne la remplacer que par une pile de type semblable ou équivalent, recommandée par le fabricant. Jeter les piles usagées conformément aux instructions du fabricant.

**¡Advertencia!**

Existe peligro de explosión si la batería se reemplaza de manera incorrecta. Reemplazar la batería exclusivamente con el mismo tipo o el equivalente recomendado por el fabricante. Desechar las baterías gastadas según las instrucciones del fabricante.

**אזהרה!**

קיימת סכנת פיצוץ של הסוללה במידה והוחלפה בדרך לא תקינה.  
יש להחליף

את הסוללה בסוג התואם מחברת יצרן מומלצת.  
סילוק הסוללות המשומשות יש לבצע לפי הוראות היצרן.

هناك خطر من انفجار في حالة اسبدال البطارية بطريقة غير صحيحة  
فعلي

**اسبدال البطارية**

فقط بنفس النوع أو ما يعادلها مما أوصت به الشركة المصنعة  
جخلص من البطاريات المسعملة وفقا لحعليمات الشركة الصانعة

**경고!**

배터리가 올바르게 교체되지 않으면 폭발의 위험이 있습니다. 기존 배터리와 동일하거나 제조사에서 권장하는 동등한 종류의 배터리로만 교체해야 합니다. 제조사의 안내에 따라 사용된 배터리를 처리하여 주십시오.

**Waarschuwing**

Er is ontploffingsgevaar indien de batterij verkeerd vervangen wordt. Vervang de batterij slechts met hetzelfde of een equivalent type die door de fabrikant aanbevolen wordt. Gebruikte batterijen dienen overeenkomstig fabrieksvoorschriften afgevoerd te worden.

## Redundant Power Supplies



**Warning!** This unit might have more than one power supply connection. All connections must be removed to de-energize the unit.

### 冗長電源装置

このユニットは複数の電源装置が接続されている場合があります。

ユニットの電源を切るためには、すべての接続を取り外さなければなりません。

### 警告

此部件连接的电源可能不止一个，必须将所有电源断开才能停止给该部件供电。

### 警告

此装置连接的电源可能不只一个，必须切断所有电源才能停止对该装置的供电。

### Warnung

Dieses Gerät kann mehr als eine Stromzufuhr haben. Um sicherzustellen, dass der Einheit kein Strom zugeführt wird, müssen alle Verbindungen entfernt werden.

### ¡Advertencia!

Puede que esta unidad tenga más de una conexión para fuentes de alimentación. Para cortar por completo el suministro de energía, deben desconectarse todas las conexiones.

### Attention

Cette unité peut avoir plus d'une connexion d'alimentation. Pour supprimer toute tension et tout courant électrique de l'unité, toutes les connexions d'alimentation doivent être débranchées.

אם קיים יותר מספק אחד  
אזהרה!

ליחידה יש יותר מחיבור אחד של ספק. יש להסיר את כל  
החיבורים על מנת לרוקן  
את היחידה.

قد يكون لهذا الجهاز عدة اتصالات بوحدات امداد الطاقة .  
يجب إزالة كافة الاتصالات لعسل الوحدة عن الكهرباء

경고!

이 장치에는 한 개 이상의 전원 공급 단자가 연결되어 있을 수 있습니다. 이 장치에 전원을 차단하기 위해서는 모든 연결 단자를 제거해야만 합니다.

Waarschuwing

Deze eenheid kan meer dan één stroomtoevoeraansluiting bevatten. Alle aansluitingen dienen verwijderd te worden om het apparaat stroomloos te maken.

### Backplane Voltage



**Warning!** Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.

バックプレーンの電圧

システムの稼働中は危険な電圧または電力が、バックプレーン上にかかっています。

修理する際にはご注意ください。

警告

当系统正在进行时，背板上有很危险的电压或能量，进行维修时务必小心。

警告

當系統正在進行時，背板上有危險的電壓或能量，進行維修時務必小心。

Warnung

Wenn das System in Betrieb ist, treten auf der Rückwandplatine gefährliche Spannungen oder Energien auf. Vorsicht bei der Wartung.

¡Advertencia!

Cuando el sistema está en funcionamiento, el voltaje del plano trasero es peligroso. Tenga cuidado cuando lo revise.

Attention

Lorsque le système est en fonctionnement, des tensions électriques circulent sur le fond de panier. Prendre des précautions lors de la maintenance.

מתח בפנל האחורי

אזהרה!

קיימת סכנת מתח בפנל האחורי בזמן תפעול המערכת. יש להיזהר במהלך

העבודה.

هناك خطر من التيار الكهربائي أو الطاقة المجددة على اللوحة عندما يكن النظام يعمل كه حذرا عند خدمة هذا الجهاز

경고!

시스템이 동작 중일 때 후면판 (Backplane)에는 위험한 전압이나 에너지가 발생 합니다. 서비스 작업 시 주의하십시오.

Waarschuwing

Een gevaarlijke spanning of energie is aanwezig op de backplane wanneer het systeem in gebruik is. Voorzichtigheid is geboden tijdens het onderhoud.

## Comply with Local and National Electrical Codes



**Warning!** Installation of the equipment must comply with local and national electrical codes.

地方および国の電気規格に準拠

機器の取り付けはその地方および国の電気規格に準拠する必要があります。

警告

设备安装必须符合本地与本国电气法规。

警告

設備安裝必須符合本地與本國電氣法規。

Warnung

Die Installation der Geräte muss den Sicherheitsstandards entsprechen.

¡Advertencia!

La instalacion del equipo debe cumplir con las normas de electricidad locales y nacionales.

Attention

L'équipement doit être installé conformément aux normes électriques nationales et locales.

תיאום  
חוקי החשמל  
הארצי  
אזהרה!

התקנת הציוד חייבת להיות תואמת לחוקי.  
החשמל המקומיים והארציים  
تركيب المعدات الكهربائية يجب أن يمتثل للقاويه المحلية  
والطبية المتعلقة  
بالكهرباء

경고!

현 지역 및 국가의 전기 규정에 따라 장비를 설치해야 합니다.

Waarschuwing

Bij installatie van de apparatuur moet worden voldaan aan de lokale en nationale elektriciteitsvoorschriften.

## Product Disposal



**Warning!** Ultimate disposal of this product should be handled according to all national laws and regulations.

### 製品の廃棄

この製品を廃棄処分する場合、国の関係する全ての法律・条例に従い処理する必要があります。

### 警告

本产品的废弃处理应根据所有国家的法律和规章进行。

### 警告

本产品的廢棄處理應根據所有國家的法律和規章進行。

### Warnung

Die Entsorgung dieses Produkts sollte gemäß allen Bestimmungen und Gesetzen des Landes erfolgen.

¡Advertencia!

Al deshacerse por completo de este producto debe seguir todas las leyes y reglamentos nacionales.

Attention

La mise au rebut ou le recyclage de ce produit sont généralement soumis à des lois et/ou directives de respect de l'environnement. Renseignez-vous auprès de l'organisme compétent.

סילוק המוצר

אזהרה!

סילוק סופי של מוצר זה חייב להיות בהתאם להנחיות וחוקי המדינה

التخلص النهائي من هذا المنتج ينبغي التعامل معه وفقا لجميع القوانين واللوائح الوطنية عند

경고!

이 제품은 해당 국가의 관련 법규 및 규정에 따라 폐기되어야 합니다.

Waarschuwing

De uiteindelijke verwijdering van dit product dient te geschieden in overeenstemming met alle nationale wetten en reglementen.

## Hot Swap Fan Warning



**Warning!** Hazardous moving parts. Keep away from moving fan blades. The fans might still be turning when you remove the fan assembly from the chassis. Keep fingers, screwdrivers, and other objects away from the openings in the fan assembly's housing.

ファン・ホットスワップの警告

警告!回転部品に注意。運転中は回転部(羽根)に触れないでください。シャーンシから冷却ファン装置を取り外した際、ファンがまだ回転している可能性があります。ファンの開口部に、指、ドライバー、およびその他のものを近づけないで下さい。

警告!

警告! 危险的可移动性零件。请务必与转动的风扇叶片保持距离。当您从机架移除风扇装置，风扇可能仍在转动。小心不要将手指、螺丝起子和其他物品太靠近风扇

**警告**

危險的可移動性零件。請務必與轉動的風扇葉片保持距離。當您從機架移除風扇裝置，風扇可能仍在轉動。小心不要將手指、螺絲起子和其他物品太靠近風扇。

**Warnung**

Gefährlich Bewegende Teile. Von den bewegenden Lüfterblätter fern halten. Die Lüfter drehen sich u. U. noch, wenn die Lüfterbaugruppe aus dem Chassis genommen wird. Halten Sie Finger, Schraubendreher und andere Gegenstände von den Öffnungen des Lüftergehäuses entfernt.

**¡Advertencia!**

Riesgo de piezas móviles. Mantener alejado de las aspas del ventilador. Los ventiladores podran dar vuelta cuando usted quite el montaje del ventilador del chasis. Mantenga los dedos, los destornilladores y todos los objetos lejos de las aberturas del ventilador

**Attention**

Pieces mobiles dangereuses. Se tenir a l'ecart des lames du ventilateur Il est possible que les ventilateurs soient toujours en rotation lorsque vous retirerez le bloc ventilateur du châssis. Prenez garde à ce que doigts, tournevis et autres objets soient éloignés du logement du bloc ventilateur.

**אזהרה!**

חלקים נעים מסוכנים. התרחק מלהבי המאוורר בפעולהכאשר מסירים את חלקי

המאוורר מהמארז, יתכן והמאווררים עדיין עובדים. יש להרחיק למרחק בטוח את

האצבעות וכלי עבודה שונים מהפתחים בתוך המאוורר

تحذیر! أجزاء متحركة خطيرة. ابتعد عن شفرات المروحة المتحركة. من الممكن أن

المراوح لا تزال تدور عند إزالة كتلة المروحة من الهيكل يجب إبقاء الأصابع

ومفكات البراغي وغيرها من الأشياء بعيدا عن الفتحات في كتلة المروحة. 경고!

움직이는 위험한 부품. 회전하는 송풍 날개에 접근하지 마세요. 새시로부터 팬 조립품을 제거할 때 팬은 여전히 회전하고 있을 수 있습니다. 팬 조립품 외관의 열려있는 부분들로부터 손가락 및 스크류드라이버, 다른 물체들이 가까이 하지 않도록 배치해 주십시오.

**Waarschuwing**

Gevaarlijk bewegende onderdelen. Houd voldoende afstand tot de bewegende ventilatorbladen. Het is mogelijk dat de ventilator nog draait tijdens het verwijderen van het ventilatorsamenstel uit het chassis. Houd uw vingers, schroevendraaiers en eventuele andere voorwerpen uit de buurt van de openingen in de ventilatorbehuizing.

## Power Cable and AC Adapter



**Warning!** When installing the product, use the provided or designated connection cables, power cables and AC adaptors. Using any other cables and adaptors could cause a malfunction or a fire. Electrical Appliance and Material Safety Law prohibits the use of UL or CSA -certified cables (that have UL/CSA shown on the code) for any other electrical devices than products designated by Supermicro only.

### 電源コードとACアダプター

製品を設置する場合、提供または指定および購入された接続ケーブル、電源コードとACアダプターを該当する地域の条例や安全基準に適合するコードサイズやプラグと共に使用下さい。他のケーブルやアダプタを使用すると故障や火災の原因になることがあります。電気用品安全法は、ULまたはCSA認定のケーブル(UL/CSEマークがコードに表記)を Supermicroが指定する製品以外に使用することを禁止しています。

### 警告

安裝此產品時，請使用本身提供的或指定的或採購的連接線，電源線和電源適配器，包含遵照當地法規和安全要求的合規的電源線尺寸和插頭，使用其它線材或適配器可能會引起故障或火災。除了Supermicro所指定的產品，電氣用品和材料安全法律規定禁止 使用未經UL或CSA認證的線材。（線材上會顯示UL/CSA符號）。

### 警告

安裝此產品時，請使用本身提供的或指定的或採購的連接線，電源線和電源適配器，包含遵照當地法規和安全要求的合規的電源線尺寸和插頭，使用其它線材或適配器可能會引起故障或火災。除了Supermicro所指定的產品，電氣用品和材料安全法律規定禁止 使用未經UL或CSA認證的線材。（線材上會顯示UL/CSA符號）。

### Warnung

Nutzen Sie beim Installieren des Produkts ausschließlich die von uns zur Verfügung gestellten Verbindungskabeln, Stromkabeln und/oder Adapter, die Ihre örtlichen Sicherheitsstandards einhalten. Der Gebrauch von anderen Kabeln und Adapter können Fehlfunktionen oder Feuer verursachen. Die Richtlinien untersagen das Nutzen von UL oder CAS zertifizierten Kabeln (mit UL/CSA gekennzeichnet), an Geräten oder Produkten die nicht mit Supermicro gekennzeichnet sind.



## ¡Advertencia!

Cuando instale el producto, utilice la conexión provista o designada o procure cables, Cables de alimentación y adaptadores de CA que cumplan con los códigos locales y los requisitos de seguridad, incluyendo el tamaño adecuado del cable y el enchufe. El uso de otros cables y adaptadores podría causar un mal funcionamiento o un incendio. La Ley de Seguridad de Aparatos Eléctricos y de Materiales prohíbe El uso de cables certificados por UL o CSA (que tienen el certificado UL / CSA en el código) para cualquier otros dispositivos eléctricos que los productos designados únicamente por Supermicro.Attention

## Attention

Lors de l'installation du produit, utilisez les cables de connection fournis ou désigné ou achetez des cables, cables de puissance et adaptateurs respectant les normes locales et les conditions de securite y compris les tailles de cables et les prises electriques appropriées. L'utilisation d'autres cables et adaptateurs peut provoquer un dysfonctionnement ou un incendie. Appareils électroménagers et la Loi sur la Sécurité Matériel interdit l'utilisation de câbles certifiés- UL ou CSA (qui ont UL ou CSA indiqué sur le code) pour tous les autres appareils électriques sauf les produits désignés par Supermicro seulement.

## AC ימאתמו סיילמשח סילבכ

!הרהזא

וא ושכרנ רשא AC סיימאתמו סיקפס, סילבככ שמתשהל שי, רצומה תא סייניקתמ רשאכ לש הנוכח הדימ ללוכ, תוימוקמה תוחיטבה תושידל ומאתה רשא, הנקתהה ךרוצל ומאתה ילמשח רצק וא הלקתל סורגל לולע, רחא גוסמ אתמ וא לבכ לכב שומיש . עקתהו לבכה סילבככ שמתשהל רוסיא סייק, תוחיטבה יקוחו למשחה ירישכמב שומישה יקוחל מאתהב ילמשח רצומ לכ רובע (UL/CSA) לש דוק סהילע עיפומ רשאכ) UL-ב או UL-ב סייכמוסמה דבלב Supermicro י"ע מאתה רשא רצומב קר אלא, רחא

תאלבאל אארשב מץ וא ךדדחמלא וא ךרפוטמלא תאלויסוטלא מודחטסאב מץ, סיינתמלא בייקרת דנע אמב ךילחמלא ךמאלסלא תאבלטממו נינאוץב מאזתלאל עמ דדרתמלא ראיטלא תאלווחמו עייזאברטלא ייפ בבסטי דץ ירזא תאלווחמו תאלבאכ יא מודחטסא . מילסלא סבאלאו ולסומלא מוץ לףלז ייפ ךדמטעמלא תאלבאלא מודחטסא תאדעמלא עייזאברטלא ךזהאל ךמאלסלא נונאק רזחיי . ךיי רזח וא לטע עיינעמלא תאזנתמלא רייז ךרזא תאדעמ יא עמ (UL/CSA) ךמאלע למחט יתלאו CSA וא UL לבק נמ דדחמלא Supermicro לבק נמ ךדדחמלאו

### 전원 케이블 및 AC 어댑터

경고! 제품을 설치할 때 현지 코드 및 적절한 굵기의 코드와 플러그를 포함한 안전 요구 사항을 준수하여 제공되거나 지정된 연결 혹은 구매 케이블, 전원 케이블 및 AC 어댑터를 사용하십시오.

다른 케이블이나 어댑터를 사용하면 오작동이나 화재가 발생할 수 있습니다. 전기 용품 안전법은 UL 또는 CSA 인증 케이블 (코드에 UL / CSA가 표시된 케이블) 을 Supermicro가 지정한 제품 이외의 전기 장치에 사용하는 것을 금지합니다.

### Stroomkabel en AC-Adapter

Waarschuwing! Bij het aansluiten van het Product uitsluitend gebruik maken van de geleverde Kabels of een andere geschikte aan te schaffen Aansluitmethode, deze moet altijd voldoen aan de lokale voorschriften en veiligheidsnormen, inclusief de juiste kabeldikte en stekker. Het gebruik van niet geschikte Kabels en/of Adapters kan een storing of brand veroorzaken. Wetgeving voor Elektrische apparatuur en Materiaalveiligheid verbied het gebruik van UL of CSA -gecertificeerde Kabels (met UL/CSA in de code) voor elke andere toepassing dan de door Supermicro hiervoor beoogde Producten.

## Chapter 3

# Chassis Components

### 3-1 Overview

This chapter describes the most common components included with your chassis. Some components listed may not be included or may not be compatible with your particular chassis model. For more information, see the installation instructions detailed later in this manual.

### 3-2 Components

#### Chassis

The SC825 chassis includes eight hard drive bays. Hard drives must be purchased separately. For the latest model list, visit our website at: [www.supermicro.com](http://www.supermicro.com).

This chassis supports a 2U 8-bay backplane, three fans and one or two power supplies.

#### Backplane

Each SC825 chassis comes with a 2U SAS/SATA backplane. For more information regarding compatible backplanes, view the appendices found at the end of this manual. In addition, visit our website for the latest information at [www.supermicro.com](http://www.supermicro.com).

#### Fans

The SC825 chassis supports three system fans. System fans for SC825 chassis are powered from the motherboard. These fans are 2U high and are powered by 4-pin connectors.

#### Mounting Rails

The SC825 can be placed in a rack for secure storage and use. To setup your rack, follow the step-by-step instructions included in this manual.

## Power Supply

Each SC825 chassis model includes a high-efficiency power supply rated from 500W (redundant) to 1200W (redundant). In the unlikely event your power supply fails, replacement is simple and can be accomplished without tools.

## Air Shroud

Air shrouds are shields, usually plastic, which conduct the airflow directly to where it is needed. Always use the air shroud included with your chassis.

### 3-3 Where to get Replacement Components

Although not frequently, you may need replacement parts for your system. To ensure the highest level of professional service and technical support, we strongly recommend purchasing exclusively from our Supermicro Authorized Distributors/ System Integrators/Resellers. A list of Supermicro Authorized Distributors/System Integrators/Reseller can be found at: [www.supermicro.com](http://www.supermicro.com). Click the Where to Buy link.

## Chapter 4

# System Interface

### 4-1 Overview

There are LEDs on the control panel and the drive carriers to keep you constantly informed of the over-all status of the system, as well as the activity and health of specific components. Most SC825 models have two buttons on the chassis control panel: a reset button and an on/off switch. This chapter explains the meanings of all LED indicators and the appropriate response you may need to take.

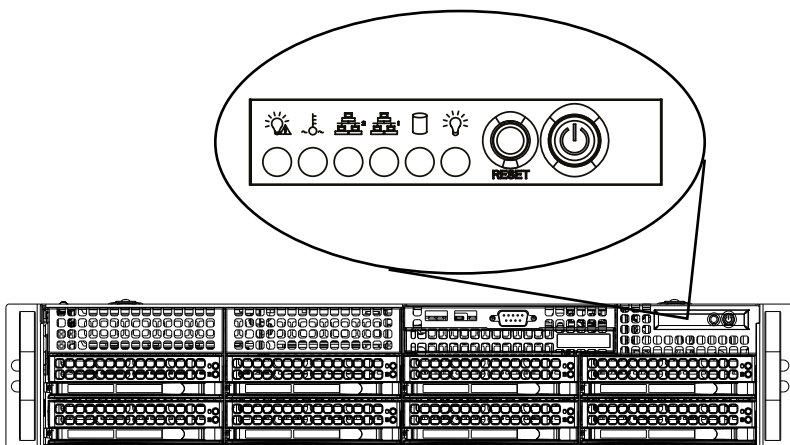
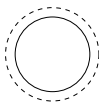


Figure 4-1: Control Panel LEDs

## 4-2 Control Panel Buttons

There are two push-buttons located on the front of the chassis. These are (in order from left to right) a reset button and a power on/off button.



- **Reset:** The reset button is used to reboot the system.



- **Power:** The main power switch is used to apply or remove power from the power supply to the server system. Turning off system power with this button removes the main power but keeps standby power supplied to the system. Therefore, you must unplug system before servicing.

## 4-3 Control Panel LEDs

The control panel located on the front of the SC825 chassis has six LEDs. These LEDs provide you with critical information related to different parts of the system. This section explains what each LED indicates when illuminated and any corrective action you may need to take.



- **Power Failure:** When this LED flashes, it indicates a power failure in the power supply.



- **Information LED:** See the following table for the status shown by this LED.

Information LED	
Status	Description
Continuously on and red	An overheat ocondition has occurred. (This may be caused by cable congestion.)
Blinking red (1 Hz)	Fan failure: check for an inoperative fan.
Blinking red (0.25 Hz)	Power failure: check for an inoperative power supply.
Solid blue	Local UID has been activated. Use this function to locate the server in a rack environment.
Blinking blue (300 msec)	Remote UID has been activated. Use this function to locate the server from a remote location.



- **NIC2:** Indicates network activity on GLAN2 when flashing.



- **NIC1:** Indicates network activity on GLAN1 when flashing.



- **HDD:** Indicates hard drive activity when flashing.



- **Power:** Indicates power is being supplied to the system's power supply units. This LED should normally be illuminated when the system is operating.

## 4-4 Drive Carrier LEDs

Your chassis uses SAS/SATA drives.

### SAS/SATA Drives

Each SAS/SATA drive carrier has two LEDs.

**Green:** Each Serial ATA drive carrier has a green LED. When illuminated, this green LED (on the front of the SATA drive carrier) indicates drive activity. A connection to the SATA backplane enables this LED to blink on and off when that particular drive is being accessed.

**Red:** The red LED indicates a SAS/SATA drive failure. If one of the SAS/SATA drives fail, you should be notified by your system management software.



## Chapter 5

# Chassis Setup and Maintenance

### 5-1 Overview

This chapter covers the steps required to install components and perform maintenance on the chassis. The only tool you will need to install components and perform maintenance is a Phillips screwdriver. Print this page to use as a reference while setting up your chassis.

### 5-2 Installation and General Maintenance

#### Installation

- Removing Power from the System
- Removing the Chassis Cover
- Installing Hard Drives
- Installing an Optional Fixed Hard Drive
- DVD ROM Replacement or Installation
- Installing the Motherboard (includes I/O Slot Setup)
- Installing the Air Shroud

#### General Maintenance

- System Fans
- Replacing the Power Supply
- Optional Front Bezel

Review the warnings and precautions listed in the manual before setting up or servicing this chassis. These include information in Chapter 2: Standardized Warning Statements for and the warning/precautions listed in the setup instructions.

## 5-3 Removing Power

Use the following procedure to ensure that power has been removed from the system. This step is necessary when removing or installing non hot-swap components or when replacing a non-redundant power supply.

1. Use the operating system to power down the system.
2. After the system has completely shut-down, disconnect the AC power cord(s) from the power strip or outlet. (If your system has more than one power supply, remove the AC power cords from all power supply modules.)
3. Disconnect the power cord(s) from the power supply module(s)

## 5-4 Removing the Chassis Cover

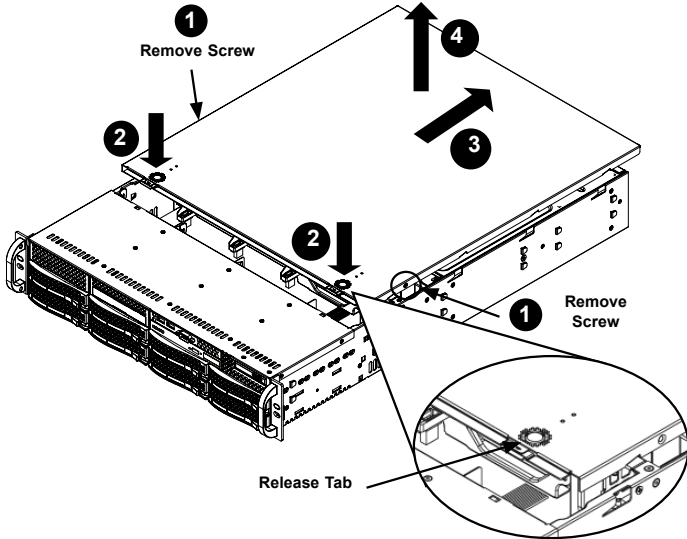


Figure 5-1. Removing the Chassis Cover

*The chassis features a removable top cover for access to the internal components. When performing service on components inside the system, remove the system from the rack and place it on a work bench or desk. Do not service with the system extended from the rack.*

### Removing the Chassis Cover

1. Power down the system and remove the power cords from the rear of the power supply.
2. Remove the two screws on each side of the cover, which secure the cover to the chassis.
3. Press the release tabs to remove the cover from the locked position. Press both tabs at the same time.
4. Once the top cover is released from the locked position, slide the cover toward the rear of the chassis.
5. Lift the cover off the chassis.

**Caution:** Except for short periods of time, do NOT operate the server without the cover in place. The chassis cover must be in place to allow proper airflow and prevent overheating.

## 5-5 Installing Hard Drives

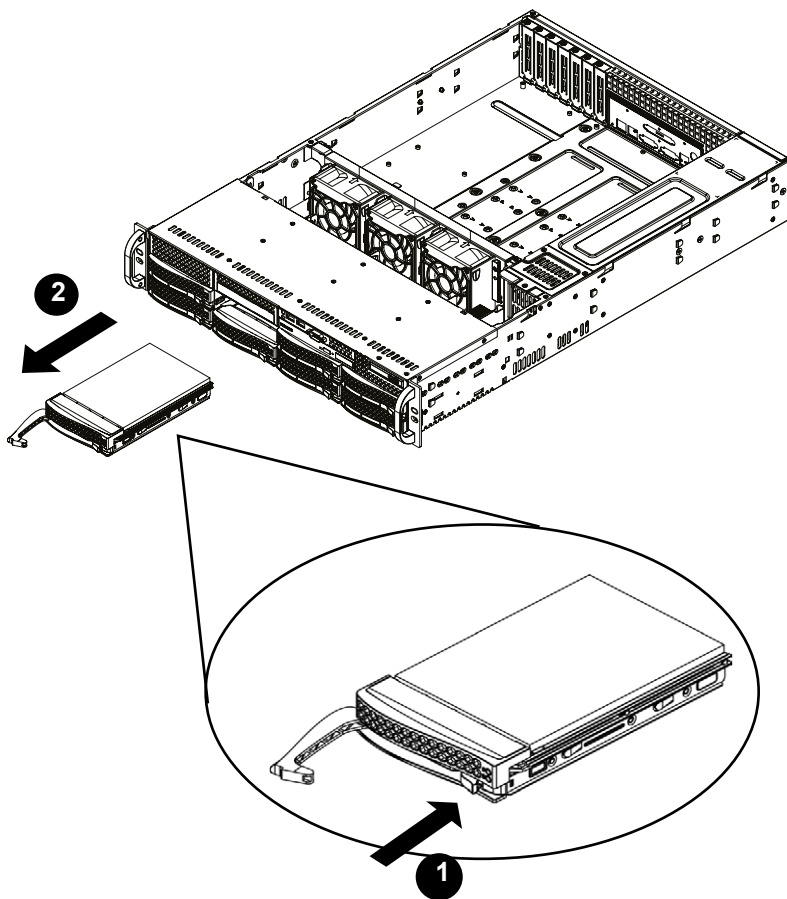


Figure 5-2. Removing Hard Drive

The SC825 features hot-swappable hard drives which can be removed without powering down the system.

### **Removing Hard Drive Trays from the Chassis**

1. Press the release button on the drive carrier. This extends the drive carrier handle.
2. Use the handle to pull the drive out of the chassis.

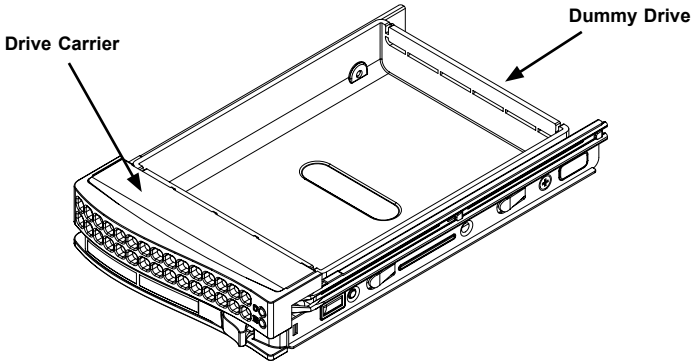


Figure 5-3. Chassis Drive Carrier

The drives are mounted in drive carriers to simplify their installation and removal from the chassis. These carriers also help promote proper airflow for the drive bays.

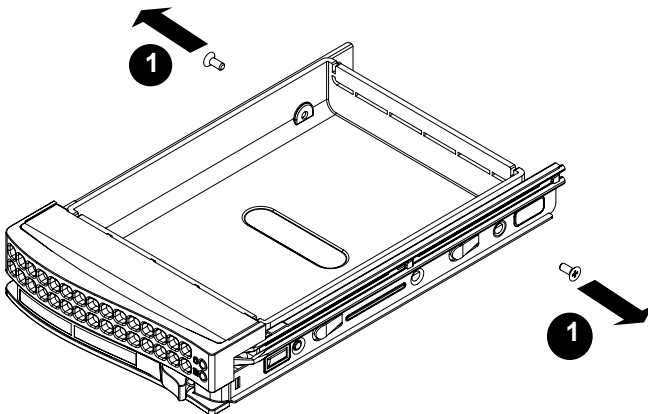


Figure 5-4. Removing Dummy Drive from Carrier

#### *Installing a Hard Drive to the Hard Drive Carrier*

1. Remove the screws securing the dummy drive to the carrier.
2. Remove the dummy drive from the carrier.

**Warning:** Except for short periods of time (swapping hard drives), do not operate the server with the hard drives removed from the bays.

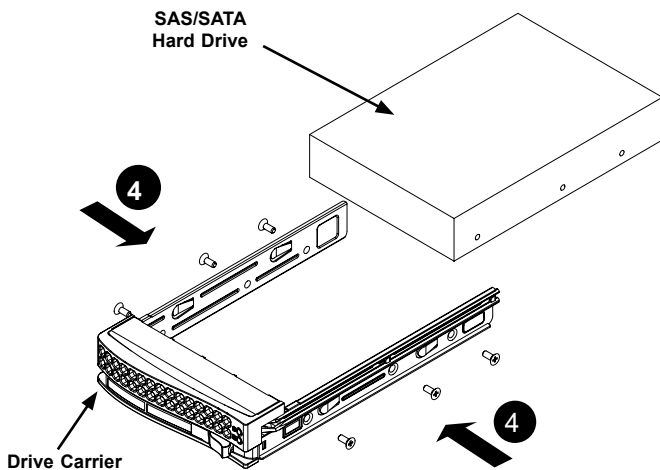


Figure 5-5. Removing the Hard Drive

3. Install a new drive into the carrier with the printed circuit board side facing down so that the mounting holes align with those in the carrier.
4. Secure the hard drive by tightening all six screws.
5. Replace the drive carrier into the chassis bay, making sure that the drive carrier handle is completely closed.

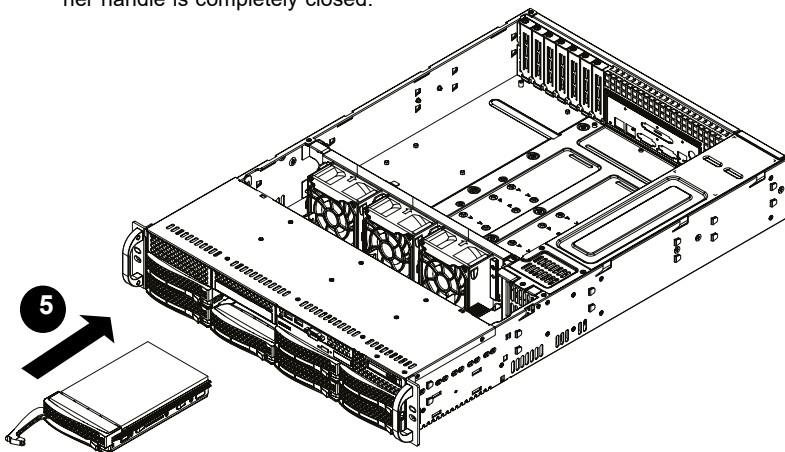


Figure 5-6. Installing the Hard Drive

**Note:** Enterprise level hard disk drives are recommended for use in Supermicro chassis and servers.

## 5-6 Installing an Optional Fixed Hard Drive

The SC825 chassis models include two open slots for optional hard disk drives. To utilize these slots, the dummy drive and the slot cover must be removed.

### *Removing the Dummy Drive or Hard Disk Drive*

1. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
2. Press the release tab.
3. Push against the back of the dummy drive, sliding the dummy drive and slot cover forward, out through the front of the chassis.
4. Insert the drive into rear of the open slot and connect the wiring.

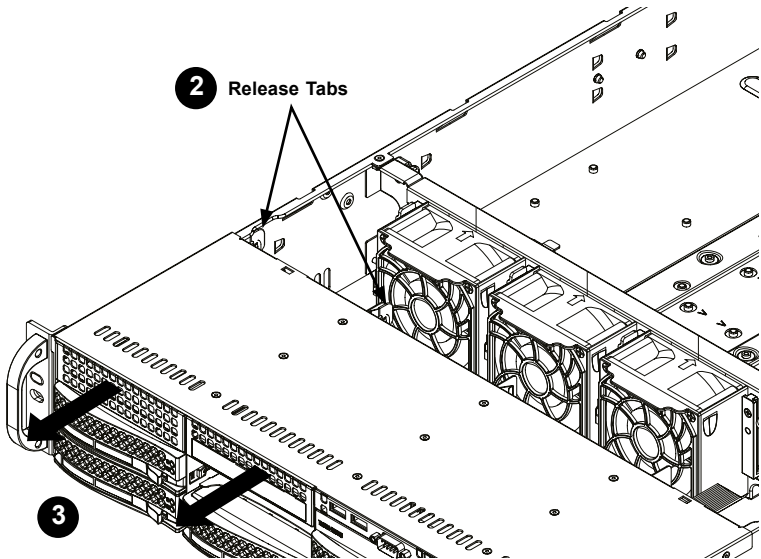


Figure 5-7. Removing the Dummy Drive and Slot Cover

## Installing the Rear 2.5" Hard Drive Cage (CSE-825B Only)

The CSE-825B model chassis supports an optional hard drive cage for two additional 2.5" hot-swappable hard drives. The hard drive cage installs in the rear of the chassis next to the power supply. Once the hard drive cage has been installed, the 2.5" hard drives may be removed without powering down the server.

### Installing the 2.5" Rear Hard Drive Cage

1. Power down as described in section 5-3, lay the chassis on a flat, stable surface and remove the chassis cover.
2. Remove the three screws connecting the bezel and lift the bezel off.
3. Remove the two standoffs.

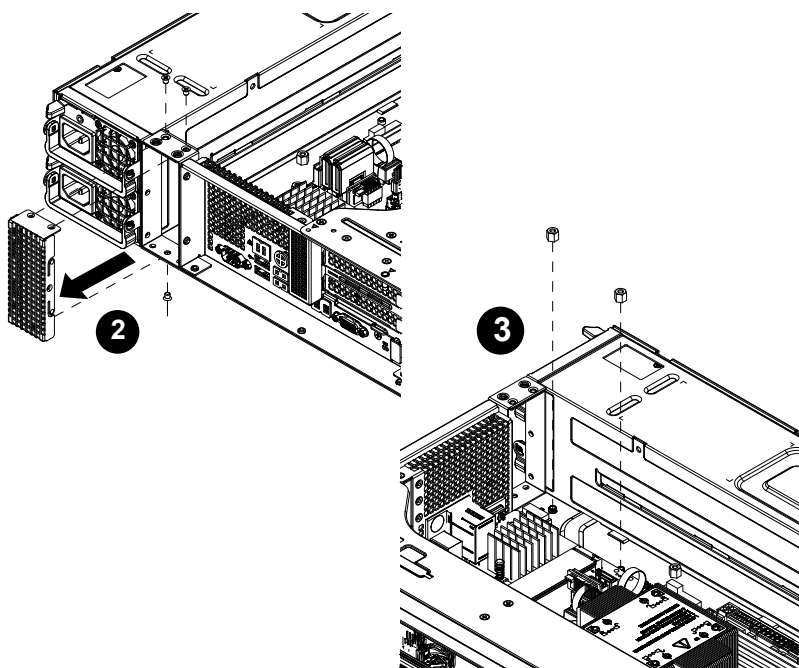
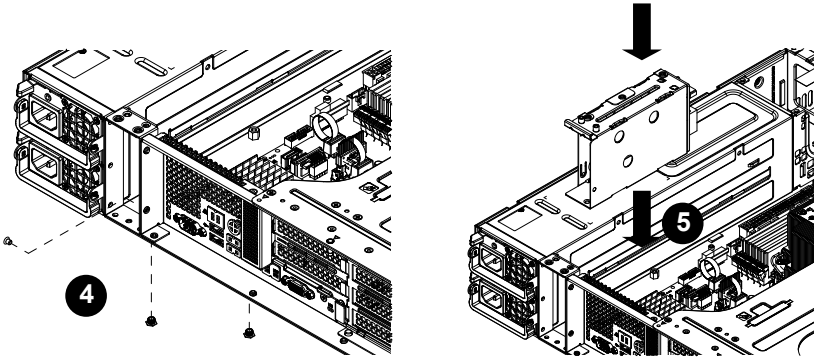


Figure 5-8. Installing the Rear 2.5" Hard Drive Cage

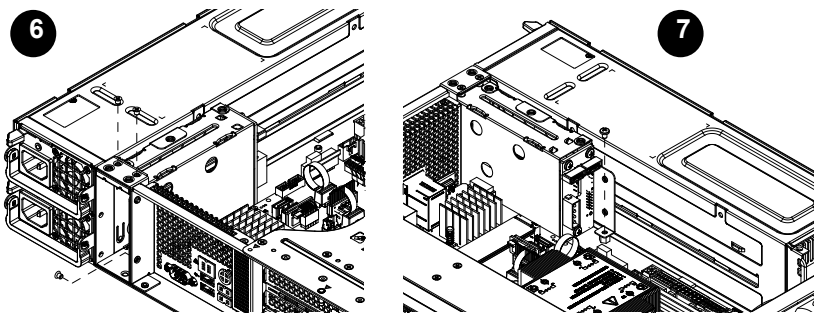
**Note:** Keep these two removable standoffs after installing the rear hard drive cage. If you want to remove the rear hard drive cage in the future, these two removable standoffs will need to be placed back to the chassis to ensure there are no opening holes on the chassis base.



4. Loosen the two screws outside and one screw inside the opening of the hard drive cage as illustrated.
5. Orient the 2.5" rear hard drive cage as shown, aligning the opening at the end of the cage with the opening at the back of the chassis. Place the hard drive cage into the chassis.



6. Secure the front of the hard drive cage to the chassis by fastening one screw inside the opening of the hard drive cage as illustrated. Secure the top of the hard drive cage to the chassis frame with two screws, fastened at the upper edge of the hard drive cage above the opening of the hard drive cage.
7. Secure the back of the hard drive cage to the chassis with one screw as shown above.
8. Replace the power cords and power up the server.



**Figure 5-9. Securing the Rear Hard Drive Cage to the Chassis**

## Installing the Rear Drives into Carriers (CSE-825B Only)

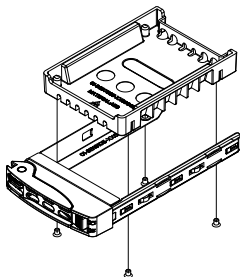


Figure 5-10. Removing the Dummy Drive from the Drive Carrier

### *Installing a Hard Drive into a 2.5" Rear Drive Carrier*

1. Insert a hard drive into the carrier with the PCB side facing down and the connector end toward the rear of the carrier.
2. Align the drive in the carrier so that the mounting holes of both are aligned. Note that there are holes in the carrier marked "SAS" or "SATA" to aid in correct installation.
3. Secure the drive to the carrier with four screws. Use the four M3 flat-head screws included in the HDD bag of your accessory box. Note that the screws used to secure the dummy drive to the tray cannot be used to secure the hard drive.
4. Insert the drive and carrier into its bay vertically, keeping the carrier oriented so that the release button is on the bottom. When the carrier reaches the rear of the bay, the release handle will retract.
5. Using the thumb, push against the upper part of the drive handle. Push the drive and carrier into the bay as illustrated below, until the carrier clicks into the locked position.

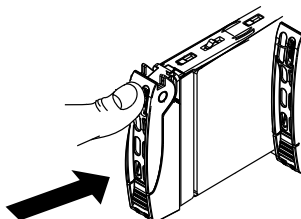


Figure 5-11. Installation of the Hard Drive into the Rear Cage Bay

## 5-7 DVD-ROM Replacement or Installation

Most SC825 chassis models include a DVD-ROM which is usually pre-installed.

### *Installing or Replacing a DVD-ROM Drive*

1. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
2. Unplug the drives power and data cables from the motherboard and/or back-plane.
3. **If you are adding a new DVD-ROM drive:** Remove the mini-bezel (grate) from the drive bay. The bezel can be removed by pulling out the hard drive beneath the DVD-ROM drive bay, then pulling the mini-bezel forward.  
**If you are replacing a drive:** Locate the locking tab at the rear (left hand side when viewed from the front) of the DVD-ROM drive. Push the tab toward the drive and push the drive unit out the front of the chassis.
4. Insert the new drive unit in the slot until the tab locks in place.
5. Reconnect the data and power cables.
6. Replace the chassis cover (replace the server in the rack, if necessary) and power up the system.

### Replacing the DVD-ROM and Front Panel

SC825 chassis models include a slim DVD-ROM and front port panel. Use the instructions in this section in the unlikely event that you must replace any of these components.

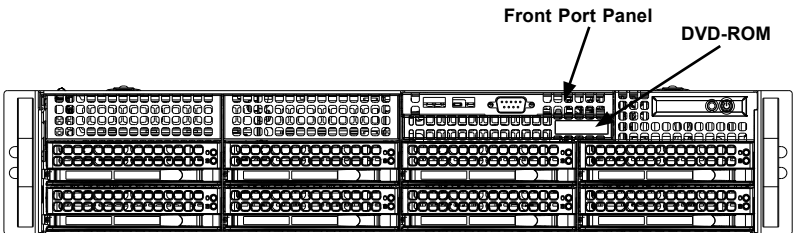


Figure 5-12. Install the DVD-ROM and Front Panel

## 5-8 Installing the Motherboard

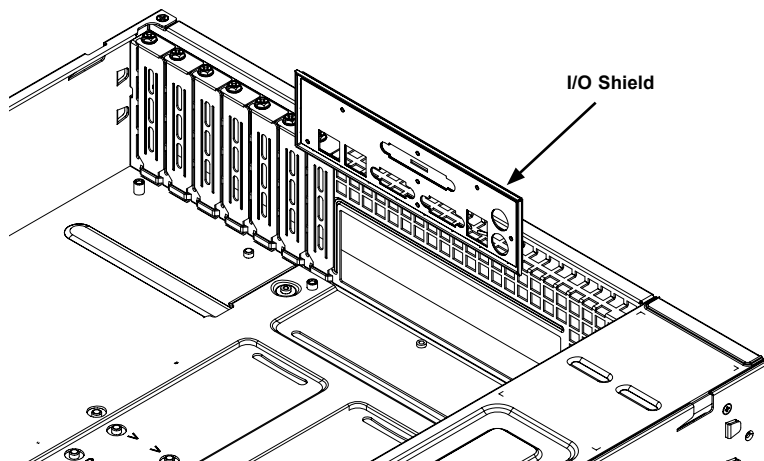


Figure 5-13. I/O shield placement (only for SC825-LP Model)

### I/O Shield

The I/O shield holds the motherboard ports in place. Install the I/O shield before you install the motherboard.

### Installing the I/O Shield (SC825-LP model only)

#### *Installing the I/O Shield*

1. Review the documentation that came with your motherboard. Become familiar with component placement, requirements, and precautions.
2. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
3. With the illustrations facing the outside of the chassis, place the shield into the space provided.
4. Once installed, the motherboard will hold the I/O shield in place.

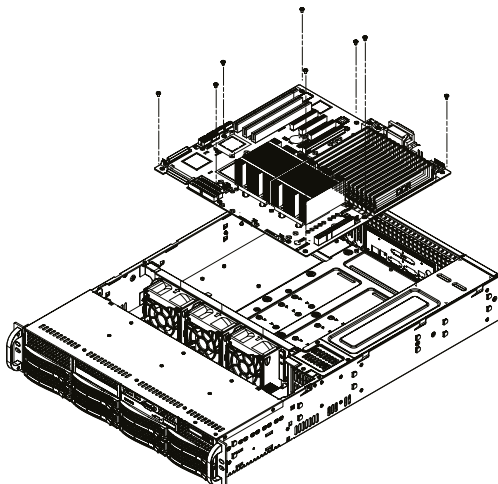
## Permanent and Optional Standoffs

Standoffs prevent short circuits by securing space between the motherboard and the chassis surface. The SC825 chassis includes permanent standoffs in locations used by most motherboards. These standoffs accept the rounded Phillips head screws included in the SC825 accessories packaging.

Some motherboards require additional screws for heatsinks, general components and/or non-standard security. Optional standoffs are included to these motherboards. To use an optional standoff, you must place the hexagonal screw through the bottom the chassis and secure the screw with the hexagon nut (rounded side up).

### ***Installing the Motherboard***

1. Review the documentation that came with your motherboard. Become familiar with component placement, requirements, precautions, and cable connections.
2. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
3. As required by your motherboard, install standoffs in any areas that do not have a permanent standoff. To do this:
  - A. Place a hexagonal standoff screw through the bottom the chassis.
  - B. Secure the screw with the hexagon nut (rounded side up).
4. Lay the motherboard on the chassis aligning the permanent and optional standoffs
5. Secure the motherboard to the chassis using the rounded, Phillips head screws. Do not exceed eight pounds of torque when tightening down the motherboard.
6. Secure the CPU(s), heatsinks, and other components to the motherboard as described in the motherboard documentation.
7. Connect the cables between the motherboard, backplane, chassis, front panel, and power supply, as needed. Also, the fans may be temporarily removed to allow access to the backplane ports.



**Figure 5-14. Chassis Standoffs**

## Expansion Card PCI Slot Setup

**SC825:** The chassis includes PCI slots for expansion cards. The number of cards you can use depends on your chassis model.

**SC825 LP:** Provides seven low-profile PCI slots.

**SC825U and SC825W:** Provides four full-height/full-length and three low-profile PCI slots through a user defined universal expansion card.

**SC825B2-W:** Provides four full-height/full-length and three low-profile PCI slots through a user defined universal expansion card.

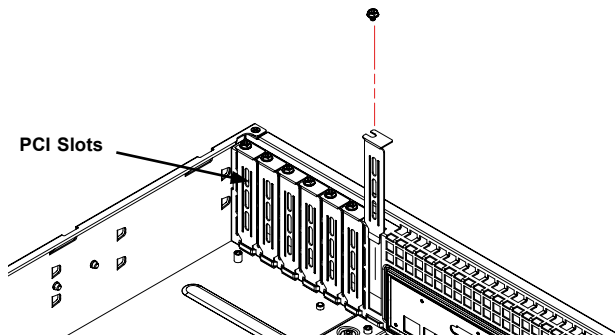


Figure 5-15. SC825 LP model

## PCI Slot Setup in LP (Low-Profile) Chassis

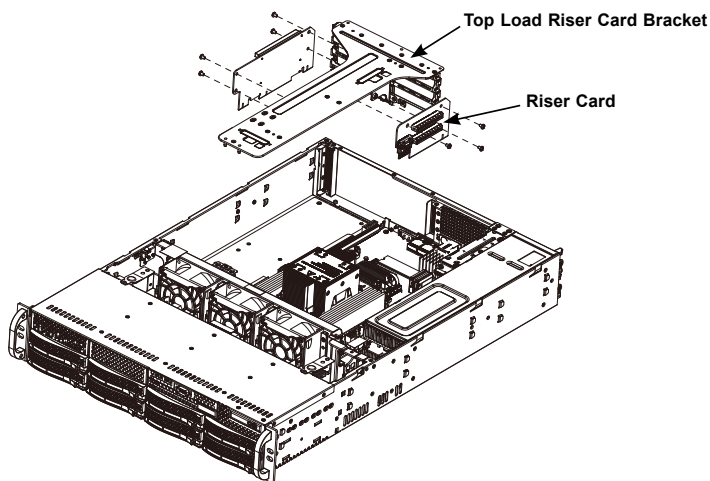
SC825 chassis include PCI slots for expansion cards. The number of cards you can use depends on your chassis model and motherboard model.

### *Installing Expansion cards in SC825LP (Low-Profile) Chassis*

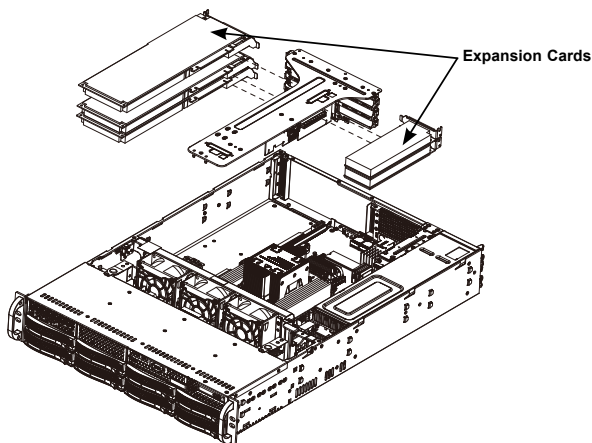
1. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
2. Remove the screw holding the cover in place for each low-profile PCI slot you want to use. Keep this screw for later use.
3. Connect the expansion cards to the mother board.
4. Secure each card to the chassis using the card's L bracket and the screw previously removed.

**Installing Expansion Cards in SC825B2-W (4x FH and 3x LP) Chassis**

1. Power down the system. Remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
2. Pull the top load riser card bracket up and out from the system.
3. Attach the riser card(s) to the top load riser card bracket using the provided screws. Note that there are different cards for the right and left side of the bracket.

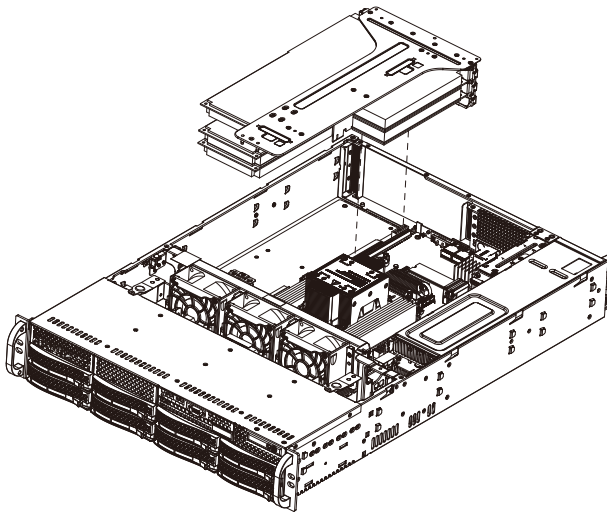


4. Install the expansion cards in the slots on the riser card bracket

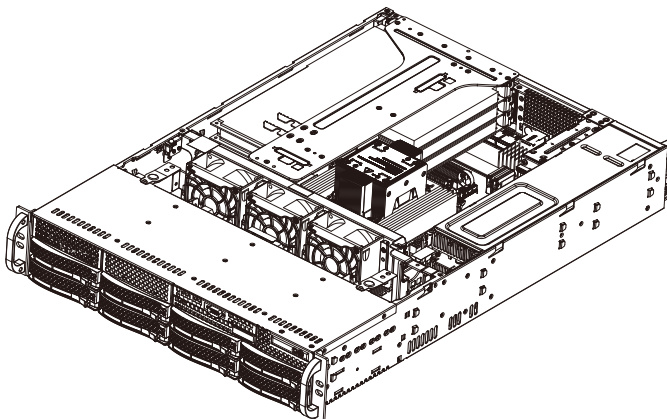




5. Insert the riser card bracket into the motherboard expansion slot(s) while aligning the riser card bracket with the rear of the chassis.
6. Secure the bracket with the provided screws.



7. Connect cables to the expansion cards as necessary.
8. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.



## PCI Slot Setup for SC825U (Universal Output) and SC825W

SC825U and SC825W chassis accepts a slightly smaller "L" shaped motherboard to allow for a universal expansion card. This universal output card allows the systems to accept SAS, SCSI, IB, Ethernet, and other types of connections.

SC825U/SC825W chassis are setup similar to 825RC chassis with two differences:

A. The SC825U/SC825W chassis accepts three full-length, full-height expansion cards instead of four. The fourth slot is used for the UI/O card (SC825U) or a 4x full-height, full-length card (SC825W).

B. The SC825U/SC825W chassis includes a bracket that extends from the fan row to the back of the chassis. This bracket provides support for the riser card.

### ***Installing a Universal Input/Output Card in the SC825U chassis:***

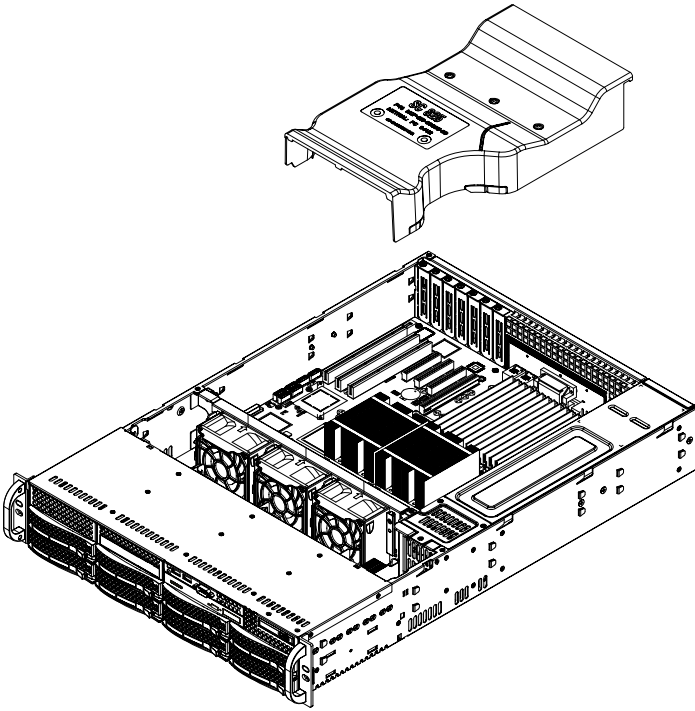
1. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
2. Connect the universal input/output to the motherboard using the slots provided on the motherboard and the back panel.
3. Secure the card to the chassis using the four screws provided with the chassis packaging.

The SC825U chassis accepts 3 full-height/full-length slots and 3 low profile slots.

### ***Installing Add-on Cards in the SC825U and SC825W Chassis***

1. Disconnect the power supply, lay the chassis on a flat surface, and open the chassis cover.
2. If you are using a universal input/output card, make sure it is installed before continuing (applies only to the SC825U).
3. If you installing low profile expansion cards, remove the chassis air shroud.
4. Secure the card to the chassis using the four screws provided with the chassis packaging.

## 5-9 Installing the Air Shroud



**Figure 5-16. Air Shroud for SC825LP Chassis**

Air shrouds concentrate airflow to maximize fan efficiency. The SC825 chassis air shroud does not require screws to set up.

### ***Installing the Air Shroud***

1. Confirm that your air shroud matches your chassis model. Each shroud is labeled SC825LP or SC825U,
2. Power down the system and remove the power cords from the rear of the power supply. Open the chassis cover as described in Section 5-3.
3. Place air shroud in the chassis. The air shroud fits behind the two fans closest to the power supply.

Note that if a 16 DIMM (13.68" x 13") motherboard is used, it is necessary to use the optional MCP-310-82502-0N air shroud. For ordering information, visit the Supermicro website at [www.supermicro.com](http://www.supermicro.com) and click on the Where to Buy link.

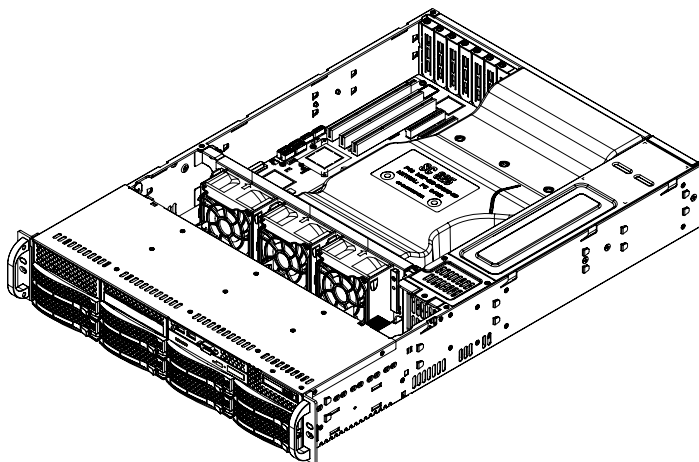


Figure 5-17. Air Shroud in Place in the SC825LP Chassis

## Checking the Server's Airflow

### *Checking the Airflow*

1. Make sure there are no objects to obstruct airflow in and out of the server. In addition, if you are using a front bezel, make sure the bezel's filter is replaced periodically.
2. Do not operate the server without drives or drive trays in the drive bays. Use only recommended server parts.
3. Make sure no wires or foreign objects obstruct air flow through the chassis. Pull all excess cabling out of the airflow path or use shorter cables.

The control panel LEDs inform you of system status. See “Chapter 4: System Interface” for details on the LEDs and the control panel buttons.

## Installation Complete

In most cases, the chassis power supply and fans are pre-installed. If you need to install fans continue to the Systems Fan section of this chapter. If the chassis will be installed into a rack, continue to the next chapter for rack installation instructions.

## 5-10 System Fans

Three heavy duty fans provide cooling for the chassis. These fans circulate air through the chassis as a means of lowering the chassis internal temperature.

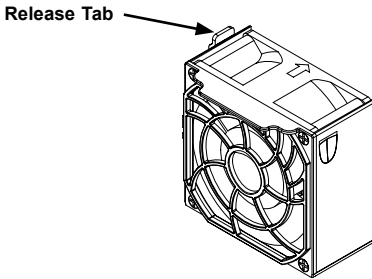
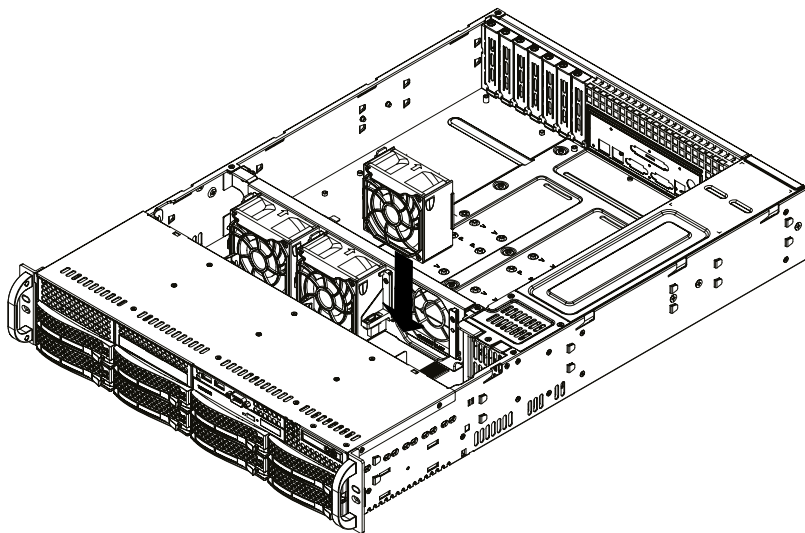


Figure 5-18. System Fan

### *Replacing a System Fan*

1. If necessary, open the chassis while the power is running to determine which fan has failed. (Never run the server for an extended period of time with the chassis open.)
2. Power down the system and unplug the power cord from the rear of the power supply.
3. Remove the failed fan's power cord from the serverboard.
4. Press the fan release tab to lift the failed fan from the chassis and pull it completely from the chassis.
5. Place the new fan into the vacant space in the housing while making sure the arrows on the top of the fan (indicating air direction) point in the same direction as the arrows on the other fans.
6. Plug the power cords into the rear of the power supply, power up the system and check that the fan is working properly before replacing the chassis cover.



**Figure 5-19. Placing a System Fan**

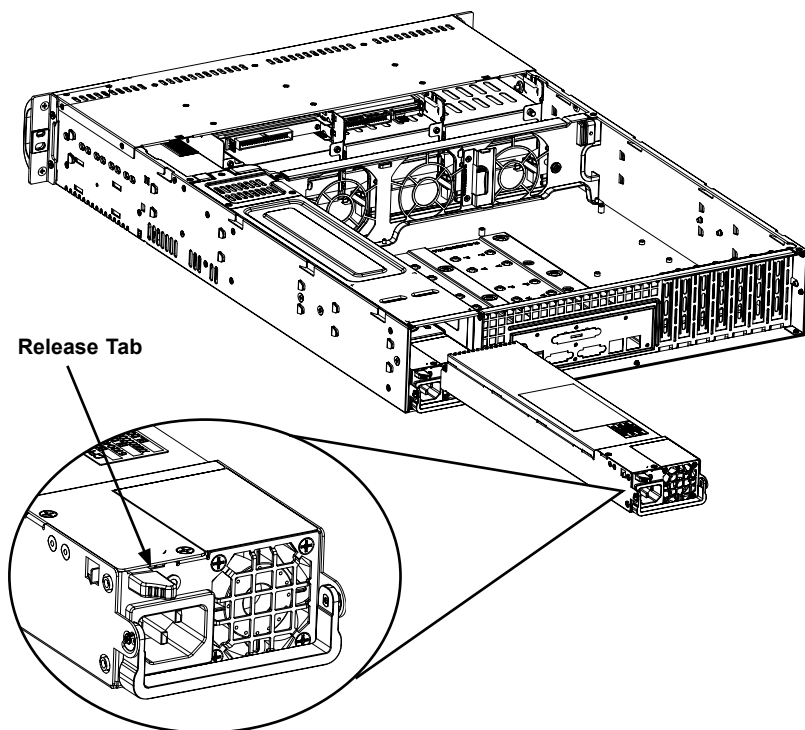
## 5-11 Power Supply

Depending on your chassis model, the SC825 Chassis has a 560, 600, 700, 710, 720, 740, 920 or 1000 Watt power supply. This power supply is auto-switching capable. This enables it to automatically sense and operate at a 100v to 240v input voltage. An amber light will be illuminated on the power supply when the power is off. An illuminated green light indicates that the power supply is operating.

### Power Supply Failure

SC825 chassis models have either one or two (redundant) power supplies. In the unlikely event that the power supply unit fails, if you have a single power supply, the system will shut down and you will need to replace the power supply unit. SC825 chassis models which include a redundant power supply, will allow for the power supply to be replaced without powering down the system.

Replacement units can be ordered directly from Supermicro (see the contact information in the Preface).

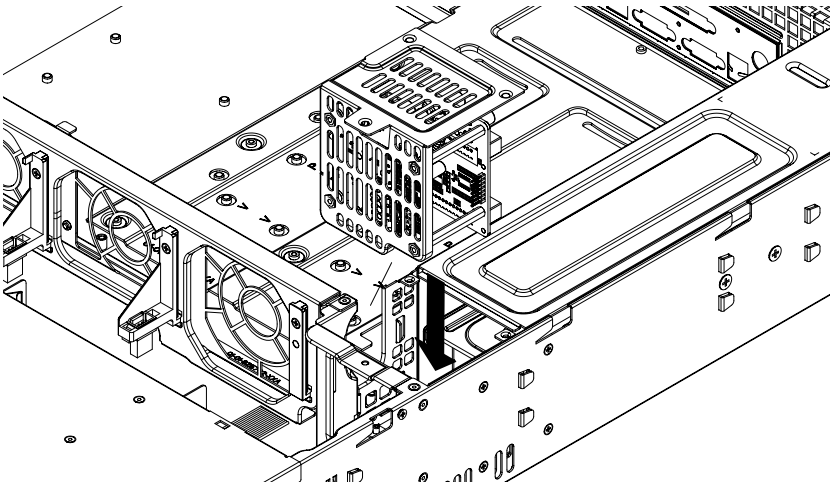


**Figure 5-20. Removing the Power Supply**

### ***Replacing the Power Supply***

1. If your chassis includes a redundant power supply (at least two power modules), you can leave the server running and remove only one power supply. If your server has only one power supply, you must power-down the server and unplug the power cord before replacing the power supply.
2. Push the release tab (on the back of the power supply) as illustrated.
3. Pull the power supply out using the handle provided.
4. Replace the failed power module with the same model.
5. Push the new power supply module into the power bay until you hear a click.
6. Plug the AC power cord back into the module and power up the server.





**Figure 5-21. Replacing the Power Distributor**

## 5-12 Replacing the Power Distributor

Redundant server chassis that are 2U or greater require a power distributor. The power distributor provides failover and power supply redundancy. In the unlikely event you must replace the power distributor, do following

1. Power down the server and remove the plug from the rear of the power supply.
2. Remove all cable connections to the power supply from the motherboard, backplane, and other components. Also, remove both power supplies.
3. Locate the power distributor between the power supply and the fan row.
4. Remove the three screws securing the power supply.
5. Gently pull the power distributor from the chassis. Gently guide all the cables through the power distributor housing.
6. Slide the new power distributor module into the power distributor housing. Make that you slide the cables through the bottom of the housing.
7. Reconnect all the power cables, replace the power supply, and insert the plug into the wall.

## 5-13 Replacing or Installing the Front Port Panel

### *Replace or Install the Front Port Panel*

1. Power down and unplug the power cord from the rear of the power supply.
2. Remove the chassis cover.
3. Disconnect the power and data cables from the front port panel to other chassis components including the motherboard and backplane.
4. Remove the old port panel by depressing the release tab, then pulling the unit out of the chassis.
5. Insert the new front port panel unit in the slot until the tab locks into place.
6. Connect the data and power cables to the backplane and motherboard.

For more information, see the manual for your backplane in the appendix.

## 5-14 Optional Front Bezel

The SC825 chassis supports an optional full-face locking front bezel for added security. The front bezel is not included with the SC825 chassis, but can be ordered separately by visiting the Supermicro website at [www.supermicro.com](http://www.supermicro.com), clicking on the Where to Buy link and referencing part number MCP-210-82503-0B.

## Notes

## Chapter 6

# Chassis Installation

This chapter provides instructions for preparing and mounting your chassis in a rack.

### 6-1 Unpacking the System

You should inspect the box the chassis was shipped in and note if it was damaged in any way. If the chassis itself shows damage, file a damage claim with the carrier who delivered it.

### 6-2 Preparing for Setup

Decide on a suitable location for the rack unit that will hold your chassis. It should be a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. A nearby grounded power outlet is required

The box your chassis was shipped in should include two sets of rail assemblies, two rail mounting brackets and the mounting screws to mount the system into the rack. Please read this chapter in its entirety before beginning the installation procedure.

#### Choosing a Setup Location

- Leave at least 25 inches clearance in front of the rack to open the front door completely.
- Leave approximately 30 inches of clearance in the back of the rack to allow for sufficient airflow and access for servicing.
- It should be a restricted access location, such as a dedicated equipment room or a service closet.

## 6-3 Warnings and Precautions

### Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on them.
- In single rack installation, stabilizers should be attached to the rack. In multiple rack installations, the racks should be coupled together.
- Always make sure the rack is stable before extending a component from the rack.
- You should extend only one component at a time - extending two or more simultaneously may cause the rack to become unstable.

### Server Precautions

- Review the electrical and general safety precautions in Chapter 4.
- Determine the placement of each component in the rack *before* you install the rails.
- Install the heaviest server components on the bottom of the rack first, and then work up.
- Use a regulating uninterruptible power supply (UPS) to protect the server from power surges, voltage spikes and to keep your system operating in case of a power failure.
- Allow the hot plug SAS drives and power supply modules to cool before touching them.
- Always keep the rack's front door and all panels and components on the servers closed when not servicing to maintain proper cooling.

## Rack Mounting Considerations

### ***Ambient Operating Temperature***

If installed in a closed or multi-unit rack assembly, the ambient operating temperature of the rack environment may be greater than the ambient temperature of the room. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature ( $T_{mra}$ ).

### ***Reduced Airflow***

Equipment should be mounted into a rack so that the amount of airflow required for safe operation is not compromised.

### ***Mechanical Loading***

Equipment should be mounted into a rack so that a hazardous condition does not arise due to uneven mechanical loading.

### ***Circuit Overloading***

Consideration should be given to the connection of the equipment to the power supply circuitry and the effect that any possible overloading of circuits might have on overcurrent protection and power supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

### ***Reliable Ground***

A reliable ground must be maintained at all times. To ensure this, the rack itself should be grounded. Particular attention should be given to power supply connections other than the direct connections to the branch circuit (i.e. the use of power strips, etc.).



**Warning!** To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

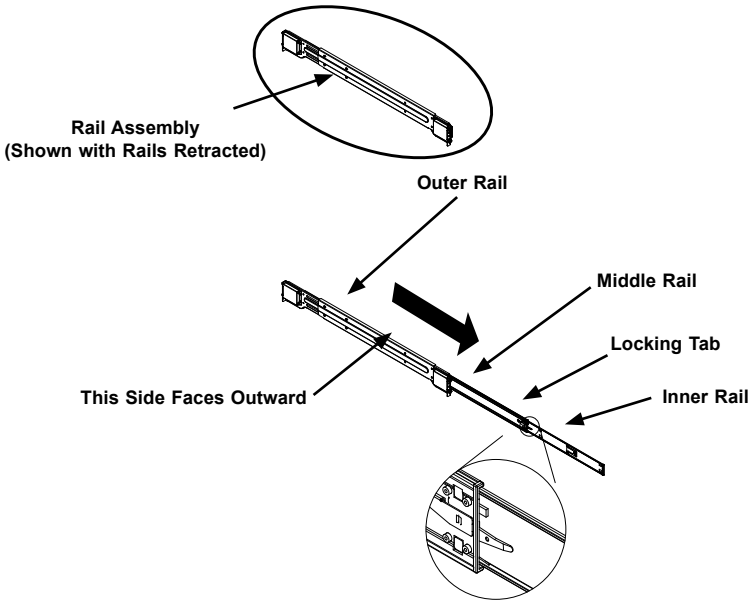
- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.
- Slide rail mounted equipment is not to be used as a shelf or a work space.

## 6-4 Installing the System into a Rack

This section provides information on installing the server into a rack unit with the rack rails provided. There are a variety of rack units on the market, so the assembly procedure may differ slightly. Refer to the installation instructions that came with your rack. **Note:** This rail will fit a rack between 26.8" and 36.4" deep.

### Identifying the Sections of the Rack Rails

The chassis package includes two rail assemblies. Each assembly consists of three sections: An inner rail that secures directly to the chassis, an outer rail that secures to the rack, and a middle rail which extends from the outer rail. These assemblies are specifically designed for the left and right side of the chassis.



**Figure 6-1. Identifying the Outer Rail, Middle Rail and Inner Rail**  
(Left Rail Assembly Shown)



## Releasing the Inner Rail

Each inner rail has a locking latch. This latch prevents the server from coming completely out of the rack when the chassis is pulled out for servicing.

To mount the rail onto the chassis, first release the inner rail from the outer rails.

### *Releasing Inner Rail from the Outer Rails*

1. Pull the inner rail out of the outer rail until it is fully extended as illustrated below.
2. Press the locking tab down to release the inner rail.
3. Pull the inner rail all the way out.

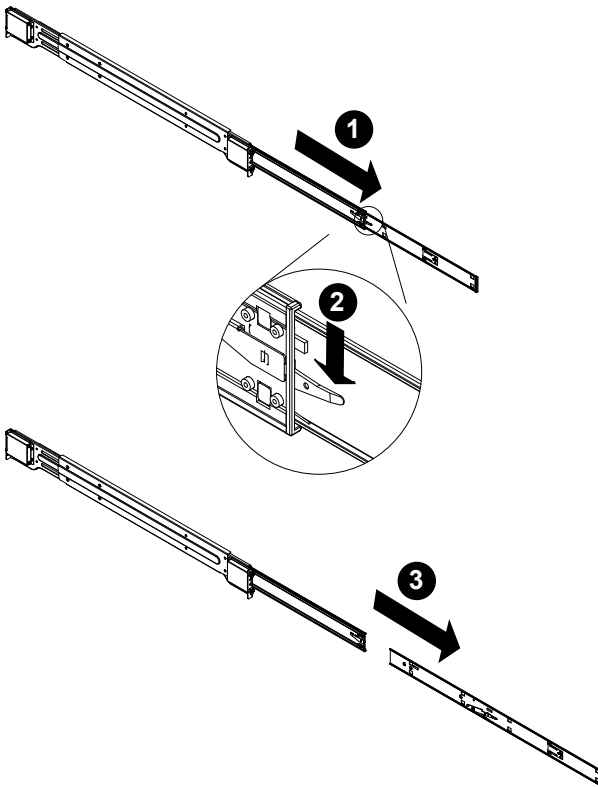


Figure 6-2. Extending and Releasing the Inner Rail

## Installing the Inner Rails on the Chassis

### Installing the Inner Rails

1. Identify the left and right inner rails. They are labeled.
2. Place the inner rail firmly against the side of the chassis, aligning the hooks on the side of the chassis with the holes in the inner rail.
3. Slide the inner rail forward toward the front of the chassis until the quick release bracket snaps into place, securing the rail to the chassis.
4. Optionally, you can further secure the inner rail to the chassis with a screw.
5. Repeat for the other inner rail.

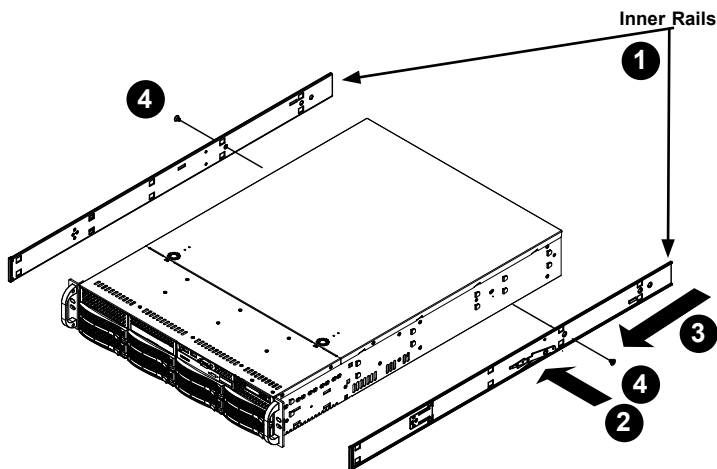
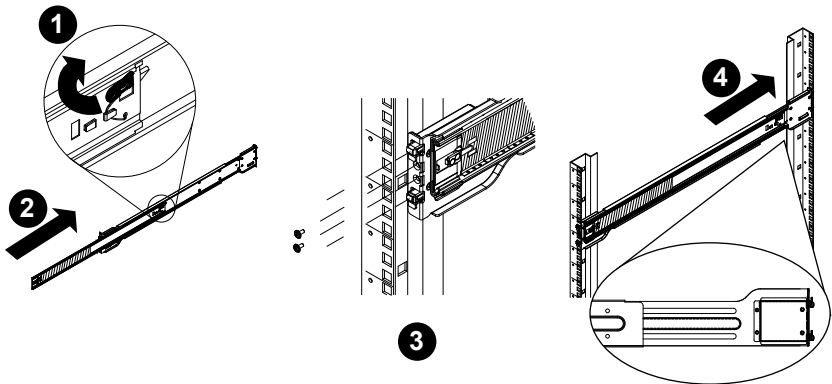


Figure 6-3. Installing the Inner Rails

## Installing the Outer Rails onto the Rack

### *Installing the Outer Rails*

1. Press upward on the locking tab at the rear end of the middle rail.
2. Push the middle rail back into the outer rail.
3. Hang the hooks on the front of the outer rail onto the square holes on the front of the rack. If desired, use screws to secure the outer rails to the rack.
4. Pull out the rear of the outer rail, adjusting the length until it just fits within the posts of the rack.
5. Hang the hooks of the rear section of the outer rail onto the square holes on the rear of the rack. Take care that the proper holes are used so the rails are level. If desired, use screws to secure the rear of the outer rail to the rear of the rack.
6. Repeat for the other outer rail.



**Figure 6-5. Extending and Mounting the Outer Rails**



**Stability hazard.** The rack stabilizing mechanism must be in place, or the rack must be bolted to the floor before you slide the unit out for servicing. Failure to stabilize the rack can cause the rack to tip over.

Do not use a two post "telco" type rack.

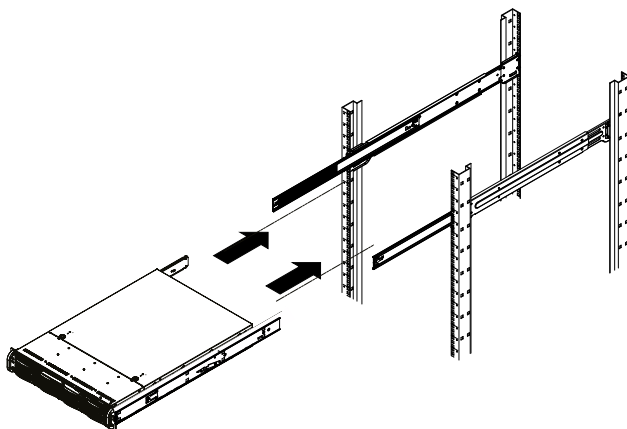
## Sliding the Chassis onto the Rack Rails



**Warning:** Mounting the system into the rack requires at least two people to support the chassis during installation. Please follow safety recommendations printed on the rails.

### *Installing the Chassis into a Rack*

1. Extend the outer rails as illustrated above.
2. Align the inner rails of the chassis with the outer rails on the rack.
3. Slide the inner rails into the outer rails, keeping the pressure even on both sides. When the chassis has been pushed completely into the rack, it should click into the locked position.
4. Optional screws may be used to hold the front of the chassis to the rack.



**Figure 6-6. Installing into a Rack**

**Note:** The figure above is for illustrative purposes only. Always install servers to the bottom of the rack first.



**Caution:** Do not pick up the server with the front handles. They are designed to pull the system from a rack only.

## Appendix A

### SC825 Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

SC825 Series				
	500W	560W	600W	R700W (Redundant)
<b>MFR Part #</b>	PWS-501P-1R	PWS-561-1H20	PWS-605P-1H	PWS-702A-IR
<b>Rated AC Voltage</b>		100 - 240V 50 - 60Hz 8.5 - 4 Amp	---	100 - 240V 60-50Hz 10 - 4 Amp
<b>AC Input</b>	100-240 V, 50-60 Hz, 6.1-2.6 Amp	---	100-240 V, 50- 60 Hz, 7.5 Amp max	---
<b>DC Input Voltage</b>		---	---	---
<b>DC Output</b>	4 Amp @ +5V standby 41.7 Amp @ +12V	---	---	---
<b>With Power Distributor</b>	+5V: 30 Amp +3.3V: 24 Amp -12V: 0.6 Amp	---	---	---
<b>+5V standby</b>		3 Amp	3 Amp	4 Amp
<b>+12V</b>		43.6 Amp	49 Amp	57 Amp
<b>+5V</b>		25 Amp	18 Amp	24 Amp
<b>+3.3V</b>		21 Amp	15 Amp	21 Amp
<b>-12V</b>		0.6 Amp	0.5	0.6 Amp

SC825 Series				
	710W DC-DC Power Supply	R720W (Redundant)	740W	1000W Redundant
<b>MFR Part #</b>	PWS-711-1R	PWS-721P-1R	PWS-741P-1R	PWS-1K03A-1R
<b>Rated AC Voltage</b>	---	---	100-240 V, 50-60 Hz 9-3.5 Amp	---
<b>AC Input</b>	---	100-240 V, 50-60 Hz, 4-9 Amp	---	100-127Vac / 9-7.5A / 50- 60Hz 200-240Vac / 6-5A / 50- 60Hz
<b>DC Input Voltage</b>	Voltage Range= -36V to -75V (24A - 11A) Nominal Volt- age = -48V	---	---	
<b>DC Output</b>	---	3 Amp @ +5V standby 59 Amp @ +12V	4 Amp @ +5V standby 61.7 Amp @ +12V	
<b>+5V standby</b>	4 Amp	---	---	Max: 4A / Min: 0A
<b>+12V</b>	59 Amp	---	---	Max: 66.7A / Min: 0A (100- 127Vac) Max: 83A / Min: 0A (200- 240Vac)
<b>+5V</b>	30 Amp	45 Amp	---	---
<b>+3.3V</b>	20 Amp	24 Amp	---	---
<b>-12V</b>	0.6 Amp	0.6 Amp	---	---

## Appendix B

### BPN-SAS-825TQ Backplane Specifications

To avoid personal injury and property damage, carefully follow all the safety steps listed below when accessing your system or handling the components.

#### B-1 ESD Safety Guidelines

*Electrostatic Discharge (ESD) can damage electronic components. To prevent damage to your system, it is important to handle it very carefully. The following measures are generally sufficient to protect your equipment from ESD.*

- Use a grounded wrist strap designed to prevent static discharge.
- Touch a grounded metal object before removing a component from the antistatic bag.
- Handle the backplane by its edges only; do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling chips or modules, avoid touching their pins.
- Put the card and peripherals back into their antistatic bags when not in use.

#### B-2 General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the BPN-SAS-825TQ backplane.
- Disconnect the power cable before installing or removing any cables from the BPN-SAS-825TQ backplane.
- Make sure that the BPN-SAS-825TQ backplane is securely and properly installed on the motherboard to prevent damage to the system due to power shortage.

## **B-3 An Important Note to Users**

All images and layouts shown in this user's guide are based upon the latest PCB Revision available at the time of publishing. The card you have received may or may not look exactly the same as the graphics shown in this manual.

## **B-4 Introduction to the BPN-SAS-825TQ Backplane**

The BPN-SAS-825TQ backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects BPN-SAS-825TQ Revision 2.0, the most current release available at the time of publication. Always refer to the Supermicro website at [www.supermicro.com](http://www.supermicro.com) for the latest updates, compatible parts and supported configurations.



## B-5 Front Connectors and SAS Ports

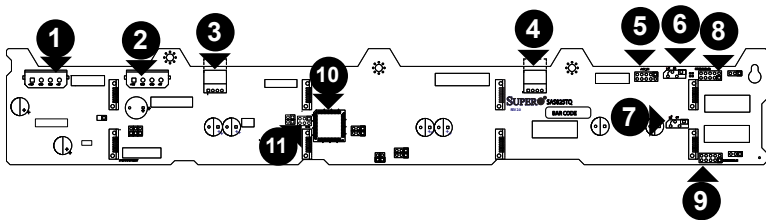


Figure B-1. Front Connectors

### Front Connectors

1. 4-pin power connector: JP13
2. 4-pin power connector: JP10
3. CD-ROM/floppy connector: JP18
4. CD-ROM/floppy connector: JP17
5. SAS activity LED header: JP26
6. I<sup>2</sup>C connector #2: JP45
7. I<sup>2</sup>C connector #1: JP44
8. Sideband connector #2: JP52
9. Sideband connector #1: JP51
10. MG9072 chip
11. Upgrade header: JP46

### SAS Ports

12. SAS Port #0
13. SAS Port #1
14. SAS Port #2
15. SAS Port #3
16. SAS Port #4
17. SAS Port #5
18. SAS Port #6
19. SAS Port #7

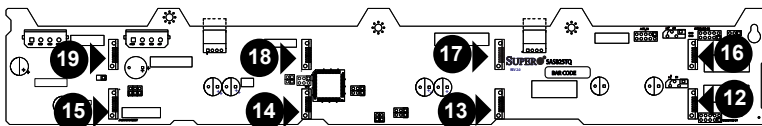


Figure B-2. Front SAS Ports

## B-6 Front Connector and Pin Definitions

### #1 and #2 Backplane Main Power Connectors

The 4-pin connectors, designated JP10, and JP13 provide power to the backplane. See the table on the right for pin definitions.

Backplane Main Power 4-Pin Connector	
Pin#	Definition
1	+12V
2 and 3	Ground
4	+5V

### #3 and #4 CD-ROM/Floppy Pin Connectors

Pin connectors designated J17 and J18, provide power to the CD-ROM and floppy drives. See the table on the right for pin definitions.

CD-ROM/FDD Power 4-Pin Connector	
Pin#	Definition
1	+5V
2 and 3	Ground
4	+12V

### #5 Activity LED Headers

The activity LED header, designated JP26 is used to indicate the activity status of each SAS drive. The activity LED header is located on the front panel. For the activity lead header to work properly, connect to it using a 10-pin LED cable. This is only used when the activity LED is not supported by the hard drive.

SAS Activity LED Header Pin Definitions			
Pin #	Definition	Pin #	Definition
1	ACT IN#0	6	ACT IN#4
2	ACT IN#1	7	ACT IN#5
3	ACT IN#2	8	ACT IN#6
4	ACT IN#3	9	ACT IN#7
5	Ground	10	Empty

### #6 and #7 I<sup>2</sup>C Connectors

The I<sup>2</sup>C Connectors, designated JP44 and JP45, are used to monitor the HDD activity and status. See the table on the right for pin definitions.

I <sup>2</sup> C Connector Pin Definitions	
Pin#	Definition
1	Data
2	Ground
3	Clock
4	No Connection

**#8 and #9 Sideband Headers**

The sideband headers are designated JP51 and JP52. For SES-2 to work properly, you must connect an 8-pin sideband cable. See the table to the right for pin definitions.

Sideband Headers			
Pin #	Definition	Pin #	Definition
2	SGPIO: SDIN; I <sup>2</sup> C: Backplane Addressing	1	Controller ID (SB6)
4	SGPIO: SDOUT; I <sup>2</sup> C: Reset	3	GND (SB2)
6	GND (SB3)	5	SGPIO: SLOAD; I <sup>2</sup> C: SDA
8	Backplane ID (SB7)	7	SGPIO: SCLOCK; I <sup>2</sup> C: SCL
10	No Connec- tion	9	No Connec- tion

**#10 MG9072 Chip**

The MG9072 is an enclosure management chip that supports the SES-2 controller and SES-2 protocols.

**#11 Upgrade Header**

The upgrade header is designated JP46 and is used for manufacturing purposes only.

**#12 to #19 SAS Ports**

The SAS ports are used to connect the SAS drive cables. The eight ports are designated #0 - #7. Each port is also compatible with SATA drives.

## B-7 Front Jumper Locations and Pin Definitions

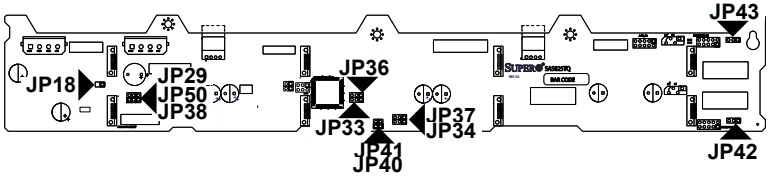
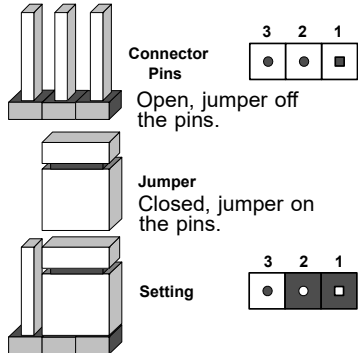


Figure C-3. Front Jumpers

### Explanation of Jumpers

To modify the operation of the backplane, jumpers can be used to choose between optional settings. Jumpers create shorts between two pins to change the function of the connector. Pin 1 is identified with a square solder pad on the printed circuit board. **Note:** On two pin jumpers, "Closed" means the jumper is on and "Open" means the jumper is off the pins.



Jumper Settings		
Jumper	Jumper Settings	Note
JP29	Open (Jumper off the pins): Default Closed (Jumper on the pins): Reset	MG9072 chip reset
JP18	Open (Jumper off the pins): Default Closed (Jumper on the pins): Reset	Buzzer reset*

\*The buzzer sound indicates that a condition requiring immediate attention has occurred.

**The buzzer alarm is triggered by the following conditions:**

1. Hard drive failure
2. System temperature over 45° Celsius.

## SGPIO and I<sup>2</sup>C Modes and Jumper Settings

This backplane can utilize SGPIO or I<sup>2</sup>C, which is the default mode and can be used without making changes to your jumpers. The following information describes which jumper must be configured to use SGPIO mode.

SGPIO Settings		
Jumper	Jumper Setting	Notes
JP33	Pins 1-2	Controller ID #1
JP34	Pins 1-2	Backplane ID #1 Pins 1-2: ID#0
JP36	Pins 1-2	Controller ID #2
JP37	Pins 1-2	Backplane ID #2 Pins 1-2: ID#0
JP38	Open (Jumper off the pins)	I <sup>2</sup> C Reset #2
JP40	Closed (Jumper on the pins)	I <sup>2</sup> C Reset_SDOOUT#1
JP41	Closed (Jumper on the pins)	I <sup>2</sup> C Reset_SDOOUT#2
JP42	Pins 1-2	I <sup>2</sup> C Backplane ID_SDIN#1
JP43	Pins 1-2	I <sup>2</sup> C Backplane ID_SDIN#2
JP50	Open (Jumper off the pins)	I <sup>2</sup> C Reset #1

<b>I<sup>2</sup>C Settings (Default)</b>		
<b>Jumper</b>	<b>Jumper Setting</b>	<b>Notes</b>
JP33	Pins 2-3	Controller ID #1
JP34	Pins 1-2	Backplane ID #1 1-2: ID#0 2-3: ID#1
JP36	Pins 2-3	Controller ID #2
JP37	Pins 2-3	Backplane ID #2 1-2: ID#0 2-3: ID#1
JP38	Closed (Jumper on the pins)	I <sup>2</sup> C Reset #2
JP40	Open (Jumper off the pins)	I <sup>2</sup> C Reset_SDOOUT#1
JP41	Open (Jumper off the pins)	I <sup>2</sup> C Reset_SDOOUT#2
JP42	Pins 2-3	I <sup>2</sup> C Backplane ID_SDIN#1
JP43	Pins 2-3	I <sup>2</sup> C Backplane ID_SDIN#2
JP50	Closed (Jumper on the pins)	I <sup>2</sup> C Reset #1

## SAS Port Connections in I<sup>2</sup>C and SGPIO Settings

Use the following chart when connecting this backplane. If the SAS ports are connected out of order, it is not easy to identify drives using the LED function.

SAS Port Connections in I <sup>2</sup> C and SGPIO Settings		
Port #	I <sup>2</sup> C	SGPIO
# 0 - 3	I <sup>2</sup> C #1	Sideband #1
# 4 - 7	I <sup>2</sup> C #2	Sideband #2

## Front LED Indicators

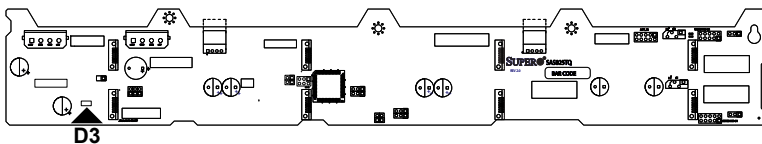


Figure B-4. Front LED

Front Panel LEDs		
LED	State	Specification
D3	On	Overheat/drive failure LED indicator. (Red light: Flashing. Buzzer: On, if activated)

## B-8 Rear Connectors and LED Indicators

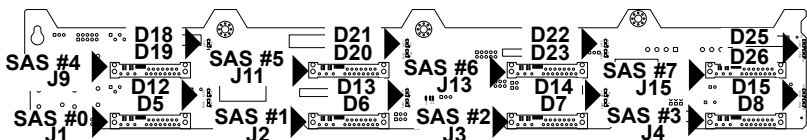


Figure B-5. Rear Connectors and LEDs

Rear SAS/SATA Connectors			
Rear Connector	SAS Drive Number	Rear Connector	SAS Drive Number
SAS #0 J1	SAS/SATA HDD #0	SAS #4 J9	SAS/SATA HDD #4
SAS #1 J2	SAS/SATA HDD #1	SAS #5 J11	SAS/SATA HDD #5
SAS #2 J3	SAS/SATA HDD #2	SAS #6 J13	SAS/SATA HDD #6
SAS #3 J4	SAS/SATA HDD #3	SAS #7 J15	SAS/SATA HDD #7

Rear LED Indicators		
Rear LED	Hard Drive Activity	Failure LED
SAS #0	D12	D5
SAS #1	D13	D6
SAS #2	D14	D7
SAS #3	D15	D8
SAS #4	D18	D19
SAS #5	D21	D20
SAS #6	D22	D23
SAS #7	D25	D26



## Appendix C

### BPN-SAS3-825TQ Backplane Specifications

This chapter offers guidelines for personal and equipment safety, and notes about the BPN-SAS3-825TQ version documented in this manual.

#### C-1 ESD Safety Guidelines

Electrostatic Discharge (ESD) can damage electronic components. To prevent damage to your system, it is important to handle it very carefully. The following measures are generally sufficient to protect your equipment from ESD.

- Use a grounded wrist strap designed to prevent static discharge.
- Touch a grounded metal object before removing a component from the antistatic bag.
- Handle the backplane by its edges only; do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling chips or modules, avoid touching their pins.
- Put the card and peripherals back into their antistatic bags when not in use.

#### C-2 General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the backplane.
- Disconnect the power cable before installing or removing any cables from the backplane.
- Make sure that the backplane is securely and properly installed on the motherboard to prevent damage to the system due to power shortage.

### C-3 Version Information

The BPN-SAS3-825TQ backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects PCB Revision 2.00a, the most current release available at the time of publication. Refer to the Supermicro Web site at [www.supermicro.com](http://www.supermicro.com) for the latest updates, compatible parts and supported configurations.

## C-4 Rear Connector Locations

The following connectors are on the side of the backplane that faces the rear of the chassis. They are marked by silkscreen labels.

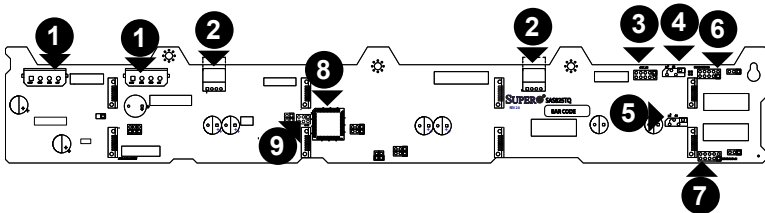


Figure C-1. Rear Connector Locations

- |   |  |
|---|--|
| 1. Power connectors: JP10, JP13               | 5. I <sup>2</sup> C connector #1: JP44 |
| 2. CD/floppy drive power connectors: J17, J18 | 6. Sideband connector #2: JP52         |
| 3. Activity LED header: JP26                  | 7. Sideband connector #1: JP51         |
| 4. I <sup>2</sup> C connector #2: JP45        | 8. MG9072 chip: U40                    |
|   | 9. Upgrade header: JP46                |

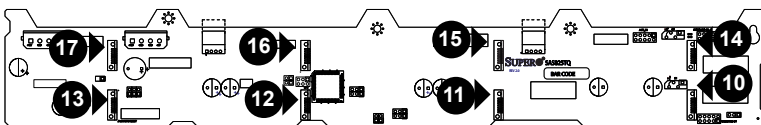


Figure C-2. Rear SAS/SATA Connectors

- |                            |                             |
|----------------------------|-----------------------------|
| 10. Cable connector #0: J5 | 14. Cable connector #4: J10 |
| 11. Cable connector #1: J6 | 15. Cable connector #5: J12 |
| 12. Cable connector #2: J7 | 16. Cable connector #6: J14 |
| 13. Cable connector #3: J8 | 17. Cable connector #7: J16 |

## C-5 Rear Connector Definitions

### 1. Backplane Main Power Connectors

The 4-pin connectors, designated JP10, and JP13 provide power to the backplane.

Main Power 4-Pin Connector	
Pin#	Definition
1	+12V
2 and 3	Ground
4	+5V

### 2. CD/Floppy Drive Pin Connectors

Pin connectors designated J17 and J18, provide power to the CD and floppy drives. See the table on the right for pin definitions.

CD/FDD Power 4-Pin Connector	
Pin#	Definition
1	+5V
2 and 3	Ground
4	+12V

### 3. Activity LED Headers

The activity LED header, designated JP26 is used to indicate the activity status of each SAS drive. The activity LED header is located on the front panel. For the activity lead header to work properly, connect to it using a 10-pin LED cable. This is only used when the activity LED is not supported by the hard drive.

SAS Activity LED Header Pin Definitions			
Pin #	Definition	Pin #	Definition
1	ACT IN#0	6	ACT IN#4
2	ACT IN#1	7	ACT IN#5
3	ACT IN#2	8	ACT IN#6
4	ACT IN#3	9	ACT IN#7
5	Ground	10	Empty

### 4, 5. I<sup>2</sup>C Connectors

The I<sup>2</sup>C connectors, designated JP44 and JP45, are used to monitor the HDD activity and status.

I <sup>2</sup> C Connector Pin Definitions	
Pin#	Definition
1	Data
2	Ground
3	Clock
4	No Connection

## 6, 7. Sideband Headers

The sideband headers are designated JP51 and JP52. For SES-2 to work properly, you must connect an 8-pin sideband cable.

Sideband Headers			
Pin #	Definition	Pin #	Definition
2	SGPIO: SDIN; I <sup>2</sup> C: Backplane Addressing	1	Controller ID (SB6)
4	SGPIO: SDOUT; I <sup>2</sup> C: Reset	3	GND (SB2)
6	GND (SB3)	5	SGPIO: SLOAD; I <sup>2</sup> C: SDA
8	Backplane ID (SB7)	7	SGPIO: SCLOCK; I <sup>2</sup> C: SCL
10	No Connec- tion	9	No Connec- tion

## 8. MG9072 Chip

The MG9072 is an enclosure management chip that supports the SES-2 controller and SES-2 protocols.

## 9. Upgrade Header

The upgrade header is designated JP46 and is used for manufacturing purposes only.

## 10-17. SAS3 Ports

Connect these ports with the SAS drive cables. The eight ports are designated #0 - #7. Each SAS port is compatible with SATA drives.

SAS3 Connectors		
Connector	Label	Port
J5	#0	SAS#0
J6	#1	SAS#1
J7	#2	SAS#2
J8	#3	SAS#3
J10	#4	SAS#4
J12	#5	SAS#5
J14	#6	SAS#6
J16	#7	SAS#7

## C-6 Rear Jumpers

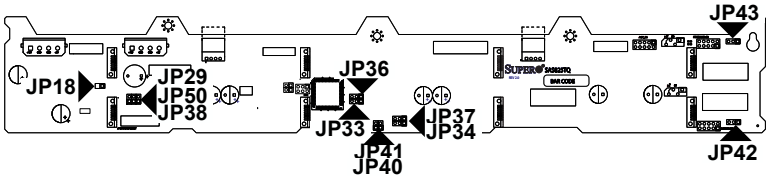
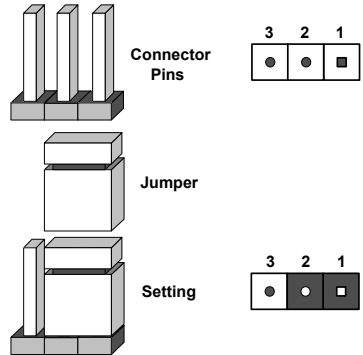


Figure C-3. Jumpers

Jumper Settings		
Jumper	Jumper Settings	Note
JP29	Open (Jumper off the pins): Default Closed (Jumper on the pins): Reset	MG9072 chip reset
JP18	Not used	

### Explanation of Jumpers

To modify the operation of the backplane, jumpers can be used to choose between optional settings. Jumpers create shorts between two pins to change the function of the connector. Pin 1 is identified with a square solder pad on the printed circuit board. **Note:** On two pin jumpers, "Closed" means the jumper is on and "Open" means the jumper is off the pins.



## SGPIO and I<sup>2</sup>C Modes and Jumper Settings

This backplane can utilize SGPIO or I<sup>2</sup>C. SGPIO is the default mode and can be used without making changes to your jumpers. The following tables describe jumper settings for each mode.

SGPIO Settings (Default)		
Jumper	Jumper Setting	Notes
JP33	1-2	Controller ID #1
JP34	1-2	Backplane ID #1 1-2: ID#0
JP36	1-2	Controller ID #2
JP37	1-2	Backplane ID #2 1-2: ID#0
JP38	Open (Jumper off the pins)	I <sup>2</sup> C Reset #2
JP40	Closed (Jumper on the pins)	I <sup>2</sup> C Reset_SDOOUT#1
JP41	Closed (Jumper on the pins)	I <sup>2</sup> C Reset_SDOOUT#2
JP42	1-2	I <sup>2</sup> C Backplane ID_SDIN#1
JP43	1-2	I <sup>2</sup> C Backplane ID_SDIN#2
JP50	Open (Jumper off the pins)	I <sup>2</sup> C Reset #1

I <sup>2</sup> C Settings		
Jumper	Jumper Setting	Notes
JP33	2-3	Controller ID #1
JP34	1-2	Backplane ID #1 1-2: ID#0 2-3: ID#1
JP36	2-3	Controller ID #2
JP37	2-3	Backplane ID #2 1-2: ID#0 2-3: ID#1
JP38	Closed (Jumper on the pins)	I <sup>2</sup> C Reset #2
JP40	Open (Jumper off the pins)	I <sup>2</sup> C Reset_SDOOUT#1
JP41	Open (Jumper off the pins)	I <sup>2</sup> C Reset_SDOOUT#2
JP42	2-3	I <sup>2</sup> C Backplane ID_SDIN#1
JP43	2-3	I <sup>2</sup> C Backplane ID_SDIN#2
JP50	Closed (Jumper on the pins)	I <sup>2</sup> C Reset #1

## C-7 Rear LED Indicators

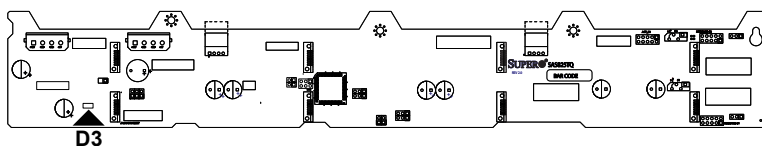


Figure C-4. Front LED

LEDs		
LED	State	Specification
D3	Red light flashing	Overheat/drive failure LED indicator



## C-8 Front Connectors and LED Indicators

The side of the backplane facing the front of the chassis provides connectors for eight SAS3 drives, and LEDs showing activity or failure..

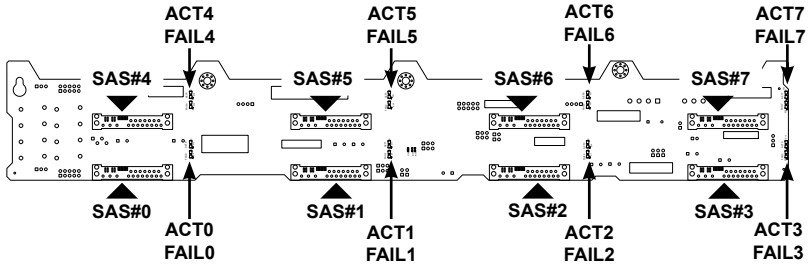


Figure C-5. Front Connectors and LEDs

Front SAS/SATA Connectors and LED Indicators			
Drive Number	Label	HDD Activity LED (blue)	Failure LED (red)
SAS #0	J1	ACT0	FAIL0
SAS #1	J2	ACT1	FAIL1
SAS #2	J3	ACT2	FAIL2
SAS #3	J4	ACT3	FAIL3
SAS #4	J9	ACT4	FAIL4
SAS #5	J11	ACT5	FAIL5
SAS #6	J13	ACT6	FAIL6
SAS #7	J15	ACT7	FAIL7

## Notes

### Disclaimer (cont.)

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