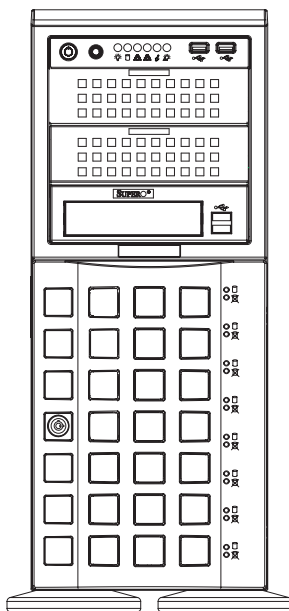


# SUPERO®

## SC745 CHASSIS Series



SC745BTQ-R1K28B

SC745BTQ-R1K28B-SQ

SC745TQ-(R)1200B

SC745TQ-(R)920B

SC745TQ-(R)800B

## USER'S MANUAL

1.0b

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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**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.**

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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 SC745 4U chassis. Installation and maintenance should be performed by experienced technicians only.

Supermicro's SC745 chassis series is optimized for the latest Intel® Xeon® processor and is also compatible with previous generation Intel and AMD dual processor-based motherboards. Utilizing redundant, high-efficiency power supplies (85% and up) with the Platinum Level 1200W option, and eight hot-swappable 3.5" drive bays, this chassis offers reliable performance with problem-free maintenance. Designed with 100% cooling redundancy via a combination of high-performance fans capable of fitting any generation of motherboard, the SC745 minimizes the probability of system downtime or performance degradation from thermal-related issues.

The SC745 features a ninety degree rotatable drive bay module, seven tool-less expansion slots, and 6-pin power connectors supporting high-end graphics cards and GPU cards. The SC745 is quick to configure and easy to operate.

For compatible backplane information, refer to the Supermicro website at [www.supermicro.com](http://www.supermicro.com).

## **Manual Organization**

### **Chapter 1: Introduction**

The first chapter provides a checklist of the main components included with this chassis and describes the main features of the SC745 chassis. This chapter also includes contact information.

### **Chapter 2: System Safety**

This chapter lists warnings, precautions, and system safety. You should thoroughly familiarize yourself with this chapter for a general overview of safety precautions that should be followed before installing and servicing this chassis.

### **Chapter 3: Chassis Components**

Refer here for details on this chassis model including the fans, bays, airflow shields, and other components.

### **Chapter 4: System Interface**

Refer to this chapter for details on the system interface, which includes the functions and information provided by the control panel on the chassis as well as other LEDs located throughout the system.

### **Chapter 5: Chassis Setup and Installation**

Refer to this chapter for detailed information on this chassis. You should follow the procedures given in this chapter when installing, removing, or reconfiguring your chassis.

### **Chapter 6: Rack Installation**

Refer to this chapter for detailed information on chassis rack installation. You should follow the procedures given in this chapter when installing, removing or reconfiguring your chassis into a rack environment.



**Appendix A: Chassis Cables**

**Appendix B: Power Supply Specifications**

**Appendix C: SAS-743TQ Backplane Manual**

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# Chapter 1

## Introduction

### 1-1 Overview

Supermicro's SC745 4U chassis features a unique and highly-optimized design. The chassis is equipped with high efficiency power supply. High-performance fans provide ample optimized cooling for the system and eight hot-swappable drive bays offer maximum storage capacity in a 4U form factor.

### 1-2 Chassis Models

Please visit the following link for the latest shipping lists and part numbers for your particular chassis model <http://www.supermicro.com>

<b>SC745 Chassis</b>			
<b>Model</b>	<b>HDD</b>	<b>I/O Slots</b>	<b>Power Supply</b>
<b>SC745TQ-(R)1200B</b>	8x SAS/SATA	7x FF	1200W Redundant (Gold Level)
<b>SC745TQ-(R)920B</b>	8x SAS/SATA	7x FF	920W Redundant (Platinum)
<b>SC745TQ-(R)800B</b>	8x SAS/SATA	7x FF	800W (Redundant)
<b>SC745BTQ- R1K28B-(SQ)</b>	8x SAS/SATA	7x FF	1200W Redundant (Platinum Level)

## 1-3 Chassis Features

The SC745 4U high-performance chassis includes the following features:

### Hard Drives

The SC745 chassis features eight slots for SAS/SATA drives. These drives are hot-swappable. Once set up correctly, these drives can be removed without powering down the server.

### I/O Expansion slots

Each version of the SC745 chassis includes seven full I/O expansion card PCI slots.

### Peripheral Drives

Each SC745 chassis provides three 5.25" peripheral drive bays for DVD-ROM/CD-ROM drive, or additional hard drives.

### Other Features

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

## 1-4 Contacting Supermicro

### Headquarters

Address: Super Micro Computer, Inc.  
980 Rock Ave.  
San Jose, CA 95131 U.S.A.

Tel: +1 (408) 503-8000

Fax: +1 (408) 503-8008

Email: [marketing@supermicro.com](mailto:marketing@supermicro.com) (General Information)  
[support@supermicro.com](mailto:support@supermicro.com) (Technical Support)

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

### Europe

Address: Super Micro Computer B.V.  
Het Sterrenbeeld 28, 5215 ML  
's-Hertogenbosch, The Netherlands

Tel: +31 (0) 73-6400390

Fax: +31 (0) 73-6416525

Email: [sales@supermicro.nl](mailto:sales@supermicro.nl) (General Information)  
[support@supermicro.nl](mailto:support@supermicro.nl) (Technical Support)  
[rma@supermicro.nl](mailto:rma@supermicro.nl) (Customer Support)

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

### Asia-Pacific

Address: Super Micro Computer, Inc.  
3F, No. 150, Jian 1st Rd.  
Zhonghe Dist., New Taipei City 235  
Taiwan (R.O.C)

Tel: +886-(2) 8226-3990

Fax: +886-(2) 8226-3992

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

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

**Notes**



## Chapter 2

# Standardized Warning Statements for AC/DC Systems

### 2-1 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。

您正處於可能身體可能會受損傷的工作環境中。在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.

## **תקנת 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 במארוזי סופרמיקרו.

تحذير! هذا الرمز يعني خطر انك في حالة يمكن أن تتسبب في اصابة جسدية .  
قبل أن تعمل على أي معدات، كن على علم بالمخاطر الناجمة عن الدوائر  
الكهربائية  
وكن على دراية بالممارسات الوقائية لمنع وقوع أي حوادث  
استخدم رقم البيان المنصوص في نهاية كل تحذير للعثور ترجمتها

안전을 위한 주의사항

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.

اقرأ إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

주의!

시스템을 전원에 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: 60VDC, 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60VDC、20A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60VDC,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60VDC,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: 60VDC, 20A 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: 60VDC, 20A.

### 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 :60VDC, 20A.

מוצר זה מסתמך על הגנה המותקנת במבנים למניעת קצר חשמלי. יש לוודא כי המכשיר המגן מפני הקצר החשמלי הוא לא יותר מ-250 V, 20 A

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

경고!

이 제품은 전원의 단락(과전류)방지에 대해서 전적으로 건물의 관련 설비에 의존합니다. 보호장치의 정격이 반드시 60V(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 60V, 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.

#### 電源切断の警告

システムコンポーネントの取り付けまたは取り外しのために、シャーシ内部にアクセスするには、

システムの電源はすべてのソースから切断され、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 châssis pour installer ou enlever des composants de système.

**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 فصل النظام من جميع مصادر الطاقة وإزالة سلك الكهرباء من وحدة امداد الطاقة قبل الوصول إلى المناطق الداخلية للهيكल لتثبيت أو إزالة مكونات 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

只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。

### 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.

يجب أن يسمح فقط للموظفين المؤهلين والمدربين لتثبيت واستبدال أو خدمة هذا الجهاز

### 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').

تم تخصيص هذه الوحدة لت تركيبها في مناطق محظورة .  
يمكن الوصول إلى منطقة محظورة فقط من خلال استخدام أداة خاصة،  
قفل ومفتاح أو أي وسيلة أخرى للالأمان

경고!

이 장치는 접근이 제한된 구역에 설치하도록 되어있습니다. 특수도구, 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 استبدال البطارية بطريقة غير صحيحة فعليك استبدال البطارية فقط بنفس النوع أو ما يعادلها كما أوصت به الشركة المصنعة تخلص من البطاريات المستعملة وفقا لتعليمات 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 لعزل 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 الموجودة على اللوحة  
عندما يكون النظام يعمل كن 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 instalación 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 للقوانين المحلية والوطنية 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

本產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.

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

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!

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

シャー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

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**

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**

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!**

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**

Il est possible que les ventilateurs soient toujours en rotation lorsque vous retirez le bloc ventilateur du châssis. Prenez garde à ce que doigts, tournevis et autres objets soient éloignés du logement du bloc ventilateur.

**אזהרה!**

כאשר מסירים את חלקי המאוורר מהמארז, יתכן והמאווררים עדיין עובדים. יש להרחיק למרחק בטוח את האצבעות וכלי עבודה שונים מהפתחים בתוך המאוורר

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!**

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**

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.

## DC Power Supply



### Warning!

When stranded wiring is required, use approved wiring terminations, such as closedloop or spade-type with upturned lugs. These terminations should be the appropriate size for the wires and should clamp both the insulation and conductor.

### 警告

より線が必要な場合、承認済みのケーブル終端(上向きの端子を備えたクローズループ型またはU字型の終端など)を使用してください。使用するワイヤーに適したサイズで、絶縁体および導体が両方ともクランプされている終端でなければなりません。

### 警告

需要多股佈線時，請使用經核准的佈線終端，例如閉環或鑷型接線片。這些終端的大小應適合線路，並且可以同時夾住絕緣體和導體。

### 警告

需要使用绞线连接时，请使用经认可的连接端子，如闭环端子或具有接线柱的铲形端子。这些端子的大小应与线缆相吻合，并且可以将绝缘部分和导体夹紧固定。

### Warnung

Wenn Litzenverdrahtung erforderlich ist, sind zugelassene Verdrahtungsabschlüsse, z.B. für einen geschlossenen Regelkreis oder gabelförmig, mit nach oben gerichteten Kabelschuhen zu verwenden. Diese Abschlüsse sollten die angemessene Größe für die Drähte haben und sowohl die Isolierung als auch den Leiter festklemmen.

### ¡Advertencia!

Quando se necesite hilo trenzado, utilizar terminales para cables homologados, tales como las de tipo "bucle cerrado" o "espada", con las lengüetas de conexión vueltas hacia arriba. Estos terminales deberán ser del tamaño apropiado para los cables que se utilicen, y tendrán que sujetar tanto el aislante como el conductor.

**Attention**

Quand des fils torsadés sont nécessaires, utiliser des douilles terminales homologuées telles que celles à circuit fermé ou du type à plage ouverte avec cosses rebroussées. Ces douilles terminales doivent être de la taille qui convient aux fils et doivent être refermées sur la gaine isolante et sur le conducteur.

**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.

**تحذير**

كإل سأل ما دختس او ، لبس ل مهب تعطقت ني ذل كإل سأل ا بولطم نو كي امدن ع عونل ةي قي قح ل ا هئ امس أب اءي شأل وأ قق ل غم قق ل ح لشم ، اءي لع قق ف او مل اء اءن كإل سأل لبس ان مل ا م ج ح ل ا نو كي تاء اءن إل ا هذ ل ي غ ب ن ي و . ق ب ول قم ت اور عل ا عم ل ص و م و ل ز عل ا نم لك ح ب ك ب ج ي و

**주의!**

꼬인 배선이 요구 될 때에는 폐회로나 돌출부가 위로 튀어 나온 Spade 형태의 승인된 배선 터미네이션들을 사용하세요.

이 터미네이션들은 배선들을 위해 적절한 크기여야 하고, 절연체와 도체 모두를 고정시킬 수 있어야 합니다.

**Waarschuwing**

Wanneer geslagen bedrading vereist is, dient u bedrading te gebruiken die voorzien is van goedgekeurde aansluitingspunten, zoals het gesloten-lus type of het grijperschop type waarbij de aansluitpunten omhoog wijzen. Deze aansluitpunten dienen de juiste maat voor de draden te hebben en dienen zowel de isolatie als de geleider vast te klemmen.



주의!

다음 절차를 수행하기 전에, 전원이 DC 회로로부터 제거되었는지를 확인해 주십시오.

Waarschuwing

Wanneer geslagen bedrading vereist is, dient u bedrading te gebruiken die voorzien is van goedgekeurde aansluitingspunten, zoals het gesloten-lus type of het grijperschop type waarbij de aansluitpunten omhoog wijzen. Deze aansluitpunten dienen de juiste maat voor de draden te hebben en dienen zowel de isolatie als de geleider vast te klemmen.

### Hazardous Voltage or Energy Present on DC Power Terminals



**Warning!**

Hazardous voltage or energy may be present on DC power terminals. Always replace cover when terminals are not in service. Be sure uninsulated conductors are not accessible when cover is in place.

警告

直接電力端子に危険な電圧やエネルギーが発生している可能性があります。使用していない端子には常にカバーをつけてください。カバーがついているときは非絶縁形コンダクターに接触していないことを確認してください。

警告

直流電源終端可能產生危險的電壓或能量。終端不使用時，請務必蓋上機蓋。當蓋上機蓋，確認不絕緣導體無法使用。

警告

直流电源终端可能会产生危险的电压或能量。终端不使用时，请务必盖上机盖。机盖盖上后，请确保导体未绝缘部分无法使用。

Warnung

In mit Gleichstrom betriebenen Terminals kann es zu gefährlicher Spannung kommen. Die Terminals müssen abgedeckt werden, wenn sie nicht in Betrieb sind. Stellen Sie bei Benutzung der Abdeckung sicher, dass alle nicht isolierten, stromführenden Kabel abgedeckt sind.

¡Advertencia!

Puede haber energía o voltaje peligrosos en los terminales eléctricos de CC. Reemplace siempre la cubierta cuando no estén utilizándose los terminales. Asegúrese de que no haya acceso a conductores descubiertos cuando la cubierta esté colocada.

Attention

Le voltage ou l'énergie électrique des terminaux à courant continu peuvent être dangereux. Veuillez à toujours replacer le couvercle lors les terminaux ne sont pas en service. Assurez-vous que les conducteurs non isolés ne sont pas accessibles lorsque le couvercle est en place.

**אזהרה!**

מקור מתח מסוכן עלול להיות נוכח על הקטבים של זרם ה-DC. החלף תמיד את המכסה כאשר הקטבים לא בשימוש. ודא כי המוליכים הלא מבודדים אינם נגישים כאשר המכסה נמצא במקומו.

**تحذير**

لادبتسا. ةمصاعلا ةقلاطلا تااطحم ىلع ةدوجوم نوكت ةقلاطلا وأ ةرطخلا دهجلا دق ريغ تالصولا هيف لكش ال امم. ةمدخلا يف تسيلا تااطحلا امدنع امئاد اعاطغ هنالكم يف اعاطغلا امدنع اهلا لوصولا نلكمي ال لوزعم.

주의!

DC전원 단자들에 위험한 전압이나 에너지가 발생할 수 있습니다.

단말기들을 운영하지 않을 때에는 덮개로 다시 덮어 놓아 주십시오. 덮개가 제자리에 있어야만 절연되지 않은 도체들의 접근을 막을 수 있습니다.

Waarschuwing

Op DC-aansluitingspunten kunnen zich gevaarlijke voltages of energieën voordoen. Plaats altijd de afsluiting wanneer de aansluitingspunten niet worden gebruikt. Zorg ervoor dat blootliggende contactpunten niet toegankelijk zijn wanneer de afsluiting is geplaatst.

## 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 compatible with your particular chassis model. For more information, see the installation instructions detailed later in this manual.

### 3-2 Components

#### Chassis

The SC745 chassis may include the following three options:

- Eight hot-swappable 3.5" hard drives
- Up to three double-width GPUs
- Seven expansion slots

For the latest shipping lists, visit our website at: [www.supermicro.com](http://www.supermicro.com).

This chassis accepts hot-swappable system cooling fans and one or two power supplies. SC745 models come in black.

#### Backplane

Each SC745 chassis comes with a 4U backplane. For more information regarding compatible SAS/SATA backplanes, view the appendices found at the end of this manual. Additional information can be found on our website at [www.supermicro.com](http://www.supermicro.com).

## **Fans**

The SC745 chassis accepts system fans and rear exhaust fans. System fans for SC745 chassis are powered from the serverboard. These fans are 4-pin PWM cooling fans.

## **Mounting Rails (optional)**

The SC745 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 SC745 chassis model includes a high-efficiency (85% and higher) power supply with thermal control fan, with options rated at 800, 920 1200 and 1280 Watts. In the unlikely event your power supply fails, replacement is simple and can be done without tools.

## **Air Shroud**

Air shrouds are shields, usually plastic, that funnel air directly to where it is needed.

### **3-3 Where to get Replacement Components**

Though 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 several LEDs on the control panel as well as others on the drive carriers to keep you constantly informed of the overall status of the system, as well as the activity and health of specific components. Most SC745 models have two buttons on the 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.

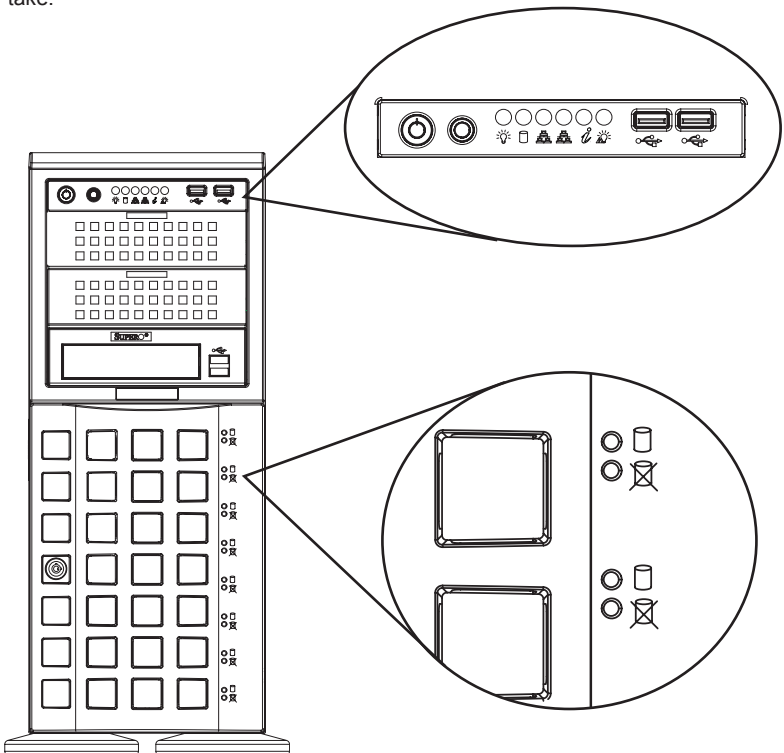


Figure 4-1: Front LEDs

## 4-2 Control Panel Buttons

There are two push-buttons located on the front of the chassis. These are the power on/off button and the reset button.



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



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

## 4-3 Control Panel LEDs

The control panel is located on the front of the SC745 chassis and has five 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.



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

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



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



**HDD:** Indicates SAS/SATA 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 SAS/SATA drive carrier has a green LED. When illuminated, this green LED (on the front of the SAS/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 to indicate an 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 Procedures

- Removing the Chassis Front and Side Covers
- Configuring the Storage Module
- Installing Hard Drives
- Installing the Motherboard
- Installing the Air Shroud and Checking the Airflow

#### General Maintenance

General Maintenance: Systems Fans

General Maintenance: Power Supply

**Warning:** 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.

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 AC/DC Systems, and the warning/precautions listed in the setup instructions.

## 5-3 Removing the Chassis Front and Side Covers

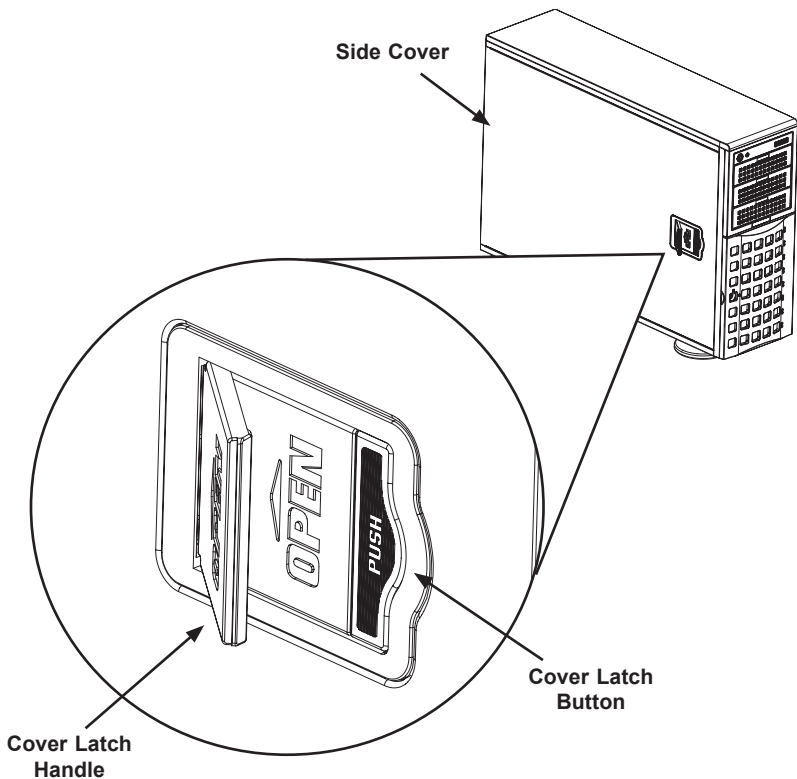


Figure 5-1: Removing the Chassis Cover

### The Side Cover

#### *Removing the Chassis Side Cover*

1. Power down the system and remove the power cords from the rear of the power supplies.
2. Push the cover latch button to release the latch handle.
3. Pull the cover off the chassis using the latch handle.

#### *Replacing the Chassis Side Cover*

1. With the latch handle open slide the cover back onto the chassis.
2. Press the latch downward when the cover is in place.

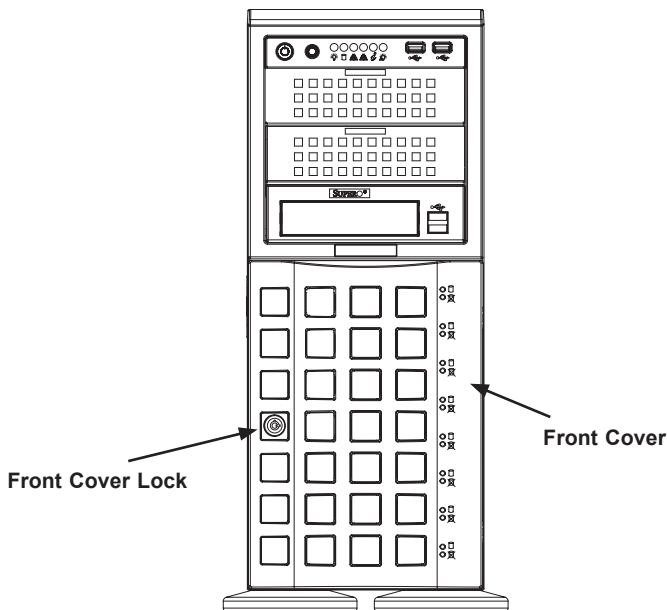


Figure 5-2: Opening the Front Cover

## The Front Cover

The front cover houses up to eight hot-swappable hard drives. The cover can be locked to prevent unauthorized access. The key to this lock is shipped with the system.

### *Removing the Front Cover*

1. Unlock the front cover using the key shipped with the system.
2. Pull the cover open using the handle near the lock.

## 5-4 Configuring the Storage Module

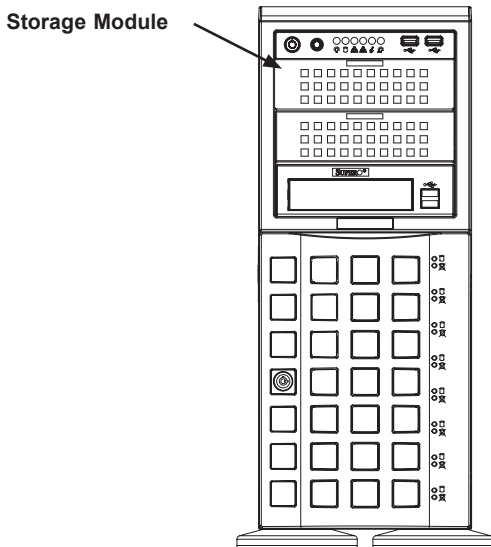


Figure 5-3: Chassis in Tower Mode

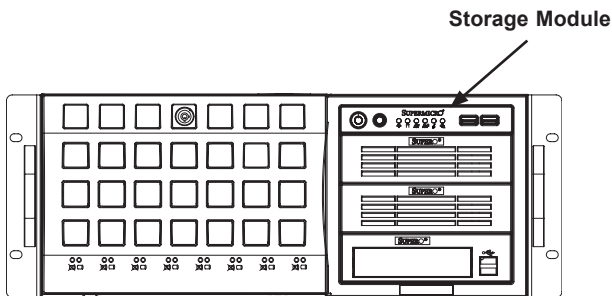
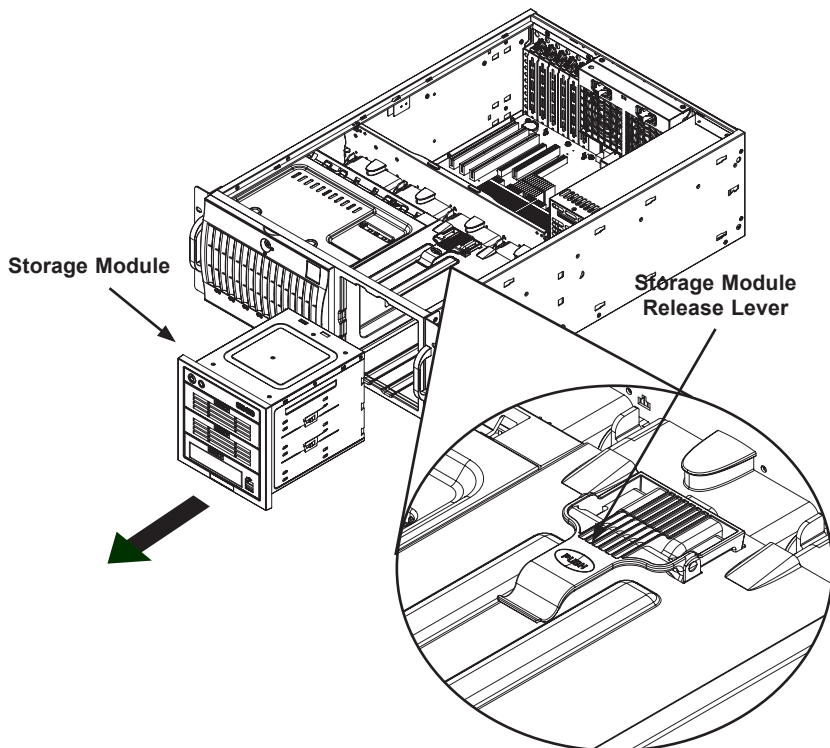


Figure 5-4: Chassis in Rack Mount Mode

### Tower or Rack Configuration

The SC745 chassis is shipped in tower mode and can be immediately used as desktop server. If the chassis is to be used in a rack, you must turn the storage module ninety degrees. This should be done before setup.

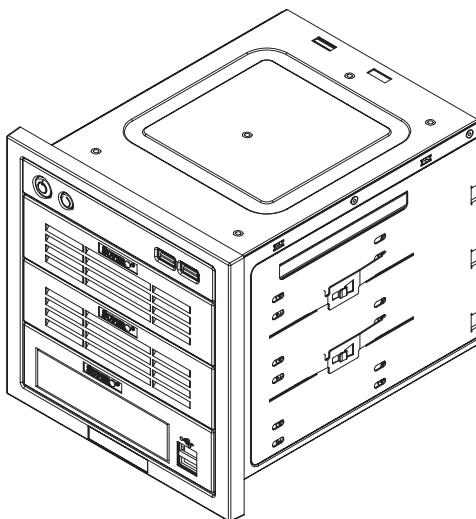




**Figure 5-5: Remove the Storage Module**

#### ***Rotating the Storage Module for Rack Mounting***

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Locate the storage module and disconnect any cables from the storage module to any component in the chassis.
3. Push the storage module release lever. This lever unlocks the storage module.
4. Grasp the external edges of the storage module and pull the unit from the chassis.
5. Turn the storage module ninety degrees (as illustrated).
6. Reinsert the module into the chassis and reconnect the cords.



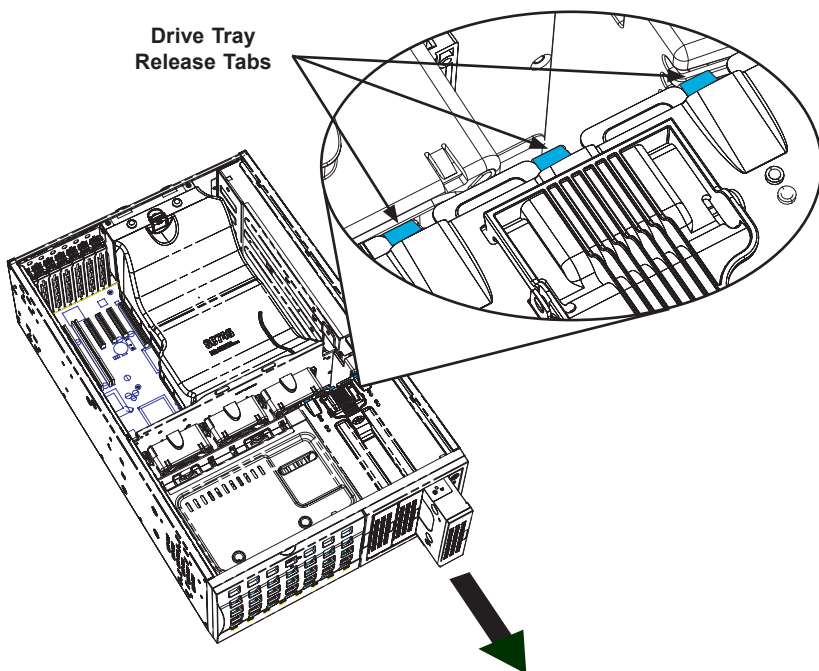
**Figure 5-6: Chassis Storage Module**

### **Adding Drives to the Storage Module**

The storage module includes three full-sized drive bays and the front LED panel.

The storage module can be set up one of three ways:

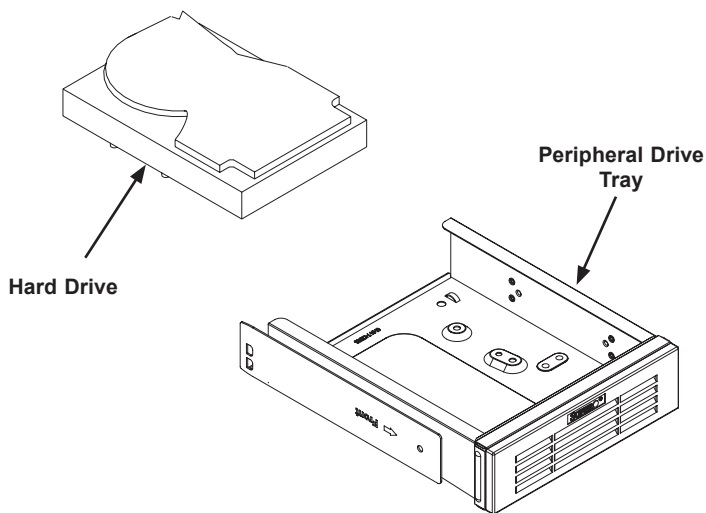
- A. Add up to three extra hard drives to the drive trays.
- B. Add up to three peripheral drives (CD-ROM, DVD-ROM, etc.) drive trays.
- C. Add five hot swappable hard drives to the storage module. This configuration requires a M35 mobile rack. More information on mobile racks can be found at the Supermicro Website at [www.supermicro.com](http://www.supermicro.com)



**Figure 5-7: Remove Drive Tray**

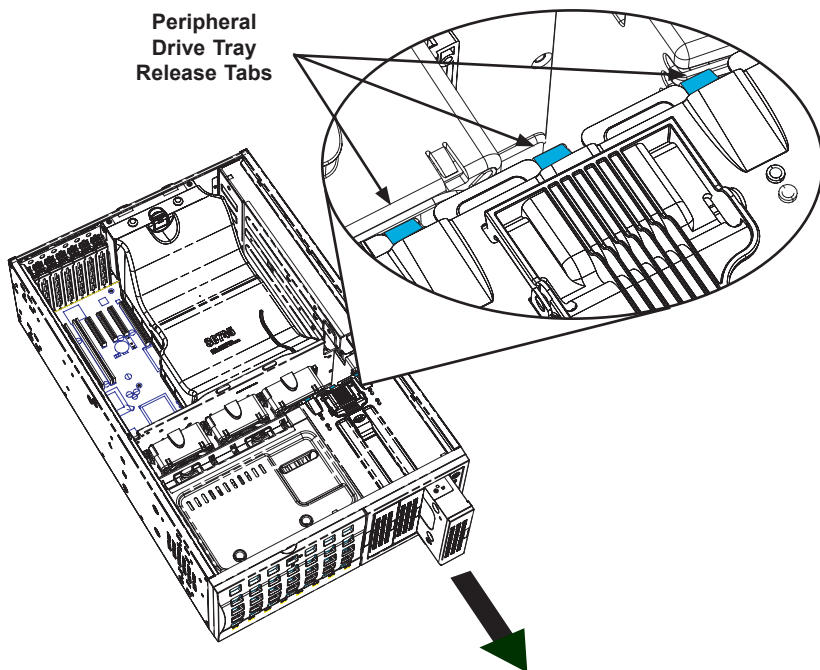
### **Adding up to Three Peripheral/Hard Drives to the Drive Trays**

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Locate the drive tray release tab for the slot in which you want to place the peripheral drive.
3. Push the drive tray toward the front of the chassis.



**Figure 5-8: Add a Hard Drive to the Peripheral Drive Tray**

4. Place the drive into the drive tray. If installing a hard drive, make sure the type of hard drive (SAS/SATA) is supported by the motherboard.
5. Secure the hard drive to the peripheral drive tray with four screws from the bottom.
6. Slide the peripheral drive tray into the chassis until the tray clicks into place.
7. Repeat these steps for each peripheral drive tray.

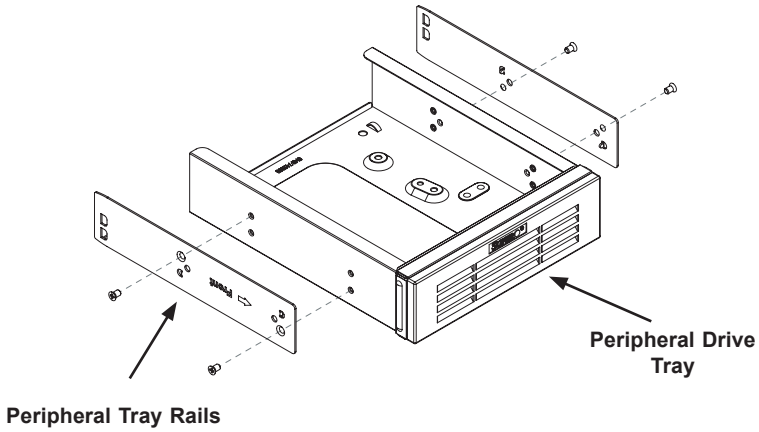


**Figure 5-9: Remove Peripheral Drive Tray**

Up to three peripheral drives (DVD-ROM, CD-ROM and others) may be added to the peripheral drive trays.

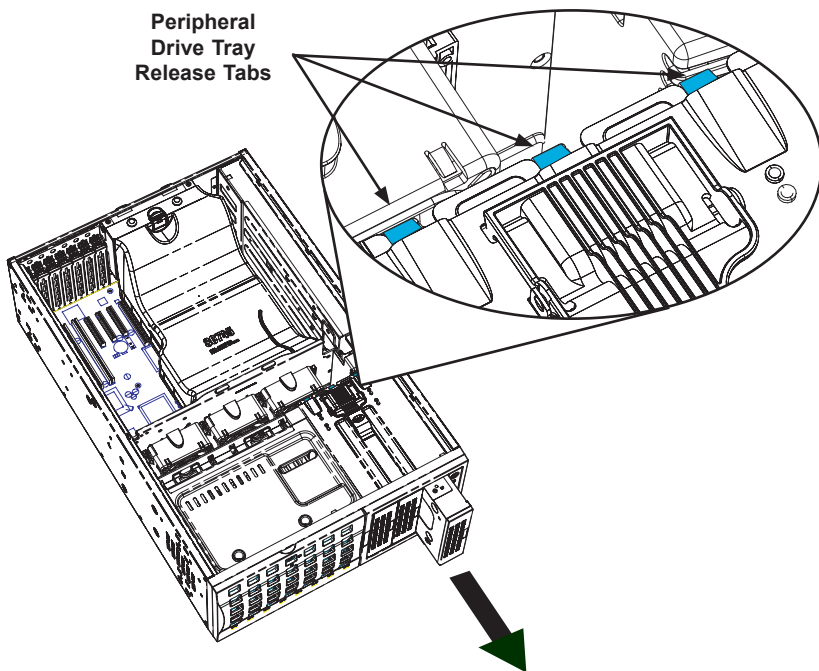
***Adding up to Three Peripheral Drives to the Drive Trays***

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Locate the drive tray release tab for the slot you want to place the peripheral drive.
3. Push the drive tray toward the front of the chassis.



**Figure 5-10: Add Peripheral Tray Rails to the DVD-ROM Drive**

4. Remove the peripheral tray rails from the peripheral drive tray. To do this, you must remove two screws from each side.
5. Attach the rails to a DVD-ROM, CD-ROM or other peripherals. The rails should fit any standard sized peripherals.
6. Slide the peripheral drive tray into the chassis until it clicks into place.
7. Repeat these steps for each peripheral drive tray.



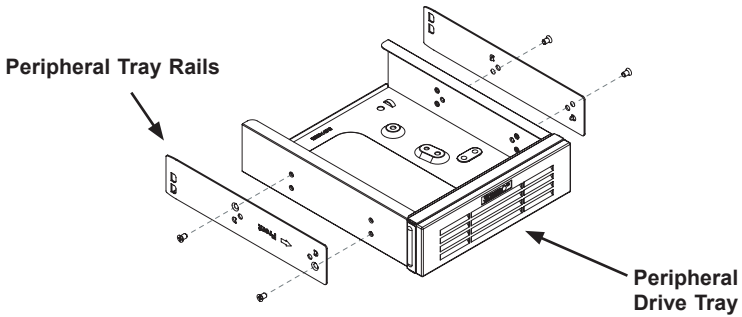
**Figure 5-11: Remove the Peripheral Drive Tray**

The SC745 chassis accepts an M35TQ mobile rack to install extra hot-swappable hard drives. The mobile rack goes into the storage module which goes into the chassis.

For more information on mobile racks, visit the Supermicro Web site at [www.supermicro.com](http://www.supermicro.com).

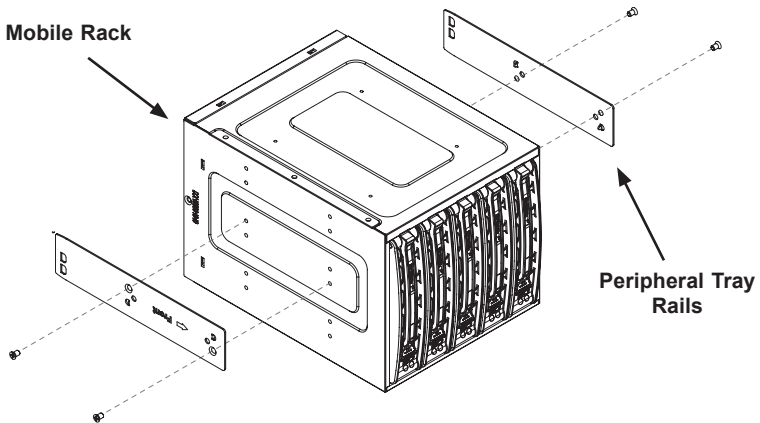
### ***Adding Five Hard Drives Using A Supermicro Mobile Rack***

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Locate the peripheral drive tray release tabs.
3. Pull the first drive release tab and push the drive tray toward the front of the chassis. Repeat this for all three tabs.



**Figure 5-12: Remove the Peripheral Tray Rails**

4. Remove the peripheral tray rails from the peripheral tray. To do this, you must remove two screws from each side. Do this for all three peripheral trays.
5. Attach the rails to the mobile rack.

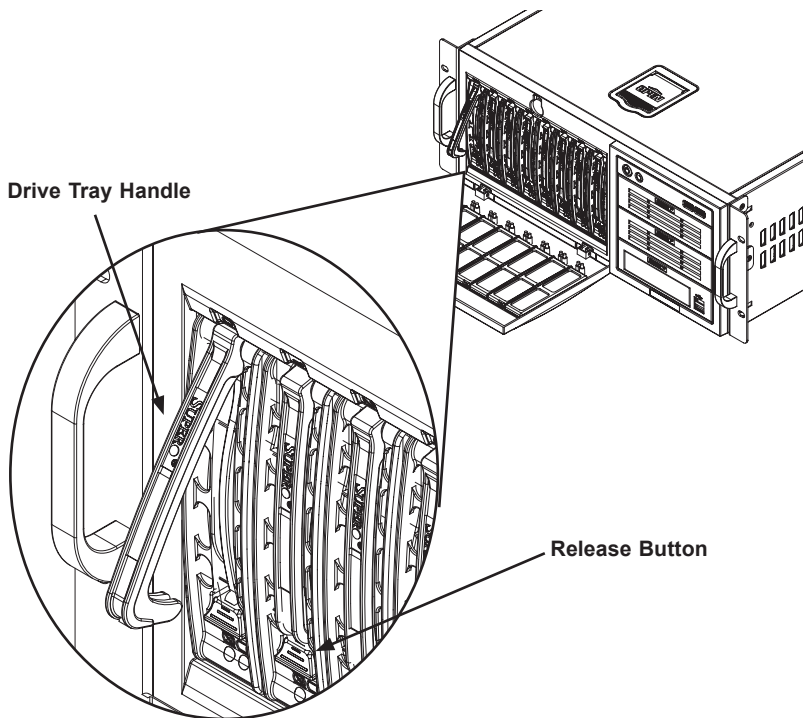


**Figure 5-13: Add Peripheral Tray Rails to Storage Rack**

6. Install all six hard drive rails to the mobile rack. Each individual rail requires two screws. Also, make sure the arrow on the rail points toward the front of the chassis.
7. Slide the mobile rack into the storage module and chassis.



## 5-5 Installing Hard Drives

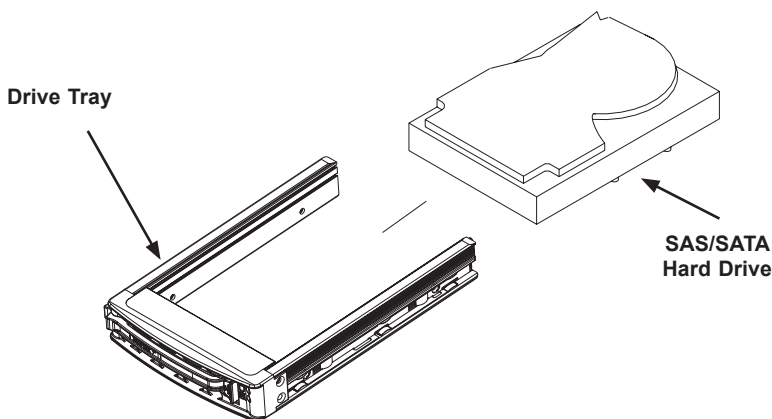


**Figure 5-14: Install Hard Drives**

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.

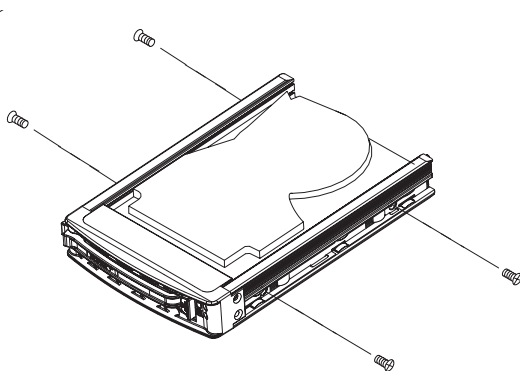
### ***Installing Hard Drives to the Chassis***

1. Unlock and open the chassis cover.
2. Press the release button to extend the drive tray handle.
3. Using the handle, pull the drive tray out by the handle. The drive is hot-swappable and there are no cables to disconnect.



**Figure 5-15: Remove Dummy Drive Tray**

4. Remove the screws holding the drive tray to the dummy drive.
5. Place a hard drive in the drive tray.



**Figure 5-16: Install Hard Drive**

6. Secure the hard drive to the tray using four screws.
7. Insert the hard drive into the chassis using the following steps:
  - 7a. Press the hard drive release button to extend the drive tray handle.
  - 7b. Insert the hard drive into the chassis and close the handle to lock the hard drive into place.

## 5-6 Installing the Motherboard

### I/O Shield

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

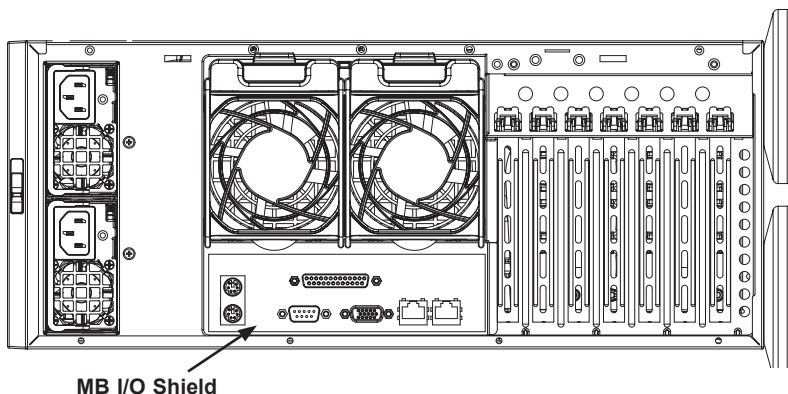


Figure 5-17: SC745 Chassis MB I/O Shield Installation

#### *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 supplies. Open the chassis cover as described in Section 5-3.
3. Choose the proper I/O shield for the motherboard you are installing.
4. With the illustrations facing the outside of the chassis, place the shield into the space provided.

## Permanent and Optional Standoffs

Standoffs prevent short circuits by securing space between the motherboard and the chassis surface. The SC745 chassis packaging includes optional standoffs (hexagonal-shaped posts). These standoffs accept the rounded Phillips head screws which are also included in the SC745 accessories package.

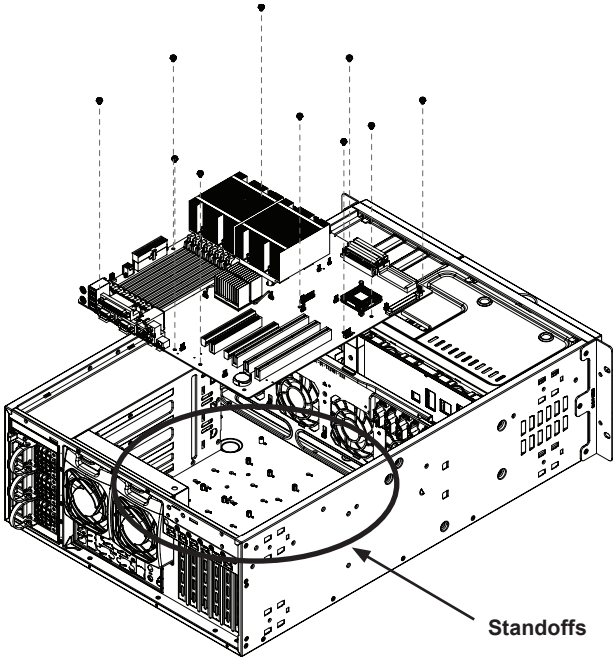


Figure 5-18: Chassis Standoffs

## Installing the Motherboard

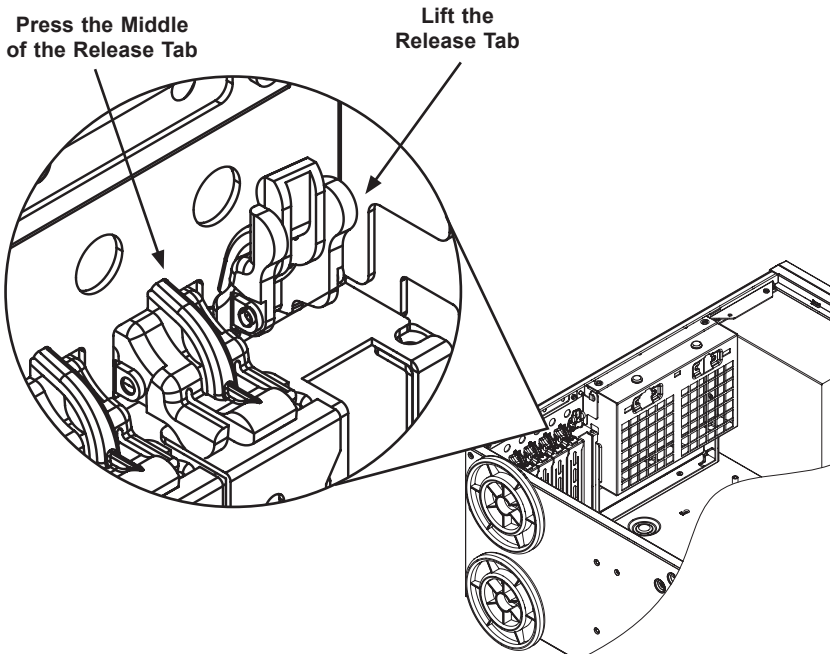
### *Motherboard Installation*

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 supplies. Open the chassis cover as described in Section 5-3. Lay the chassis on a flat surface.
3. Open the chassis cover.
4. As required by your motherboard, install standoffs in any areas that do not have a permanent standoff.
5. Lay the motherboard on the chassis aligning the permanent and optional standoffs. Compare the holes in the chassis to those in the motherboard and add or remove standoffs as needed.
6. Secure the motherboard to the chassis using the rounded, Phillips head screws. Do not exceed eight pounds of torque when tightening down the motherboard.
7. Secure the CPU(s), heatsinks, and other components to the motherboard, chassis, and/or backplane as needed.

## Power Supply Connections

Connect each of the following cables as required by your motherboard manufacturer. In some instances not all of these cables are required, and some cables may not be included.

Power Supply Cable			
Name	No.	Connects to	Description
20-pin or 24-pin power cable	1	motherboard	20-pin or 24-pin power cable provides electricity to the motherboard. The power cable has 20 or 24 yellow, black, gray, red, orange, green and blue wires.
Hard drive power cable	2	backplane	Each cable has three connectors (two hard drive connectors and one floppy drive [FDD] connector). Attach the HDD connectors to the backplane. <b>If you are using a SuperMicro backplane, the FDD connector does not need to be attached.</b>
8-pin motherboard cable	1	motherboard	Provides power to the motherboard CPU. This cable has two black and two yellow wires.
5-pin SMBus power cable (small)	1	motherboard	Allows the SM (System Management) bus to monitor the power supply
2-pin INT cable	1	motherboard	The intrusion detection cable allows the system to log when the server chassis has been opened.



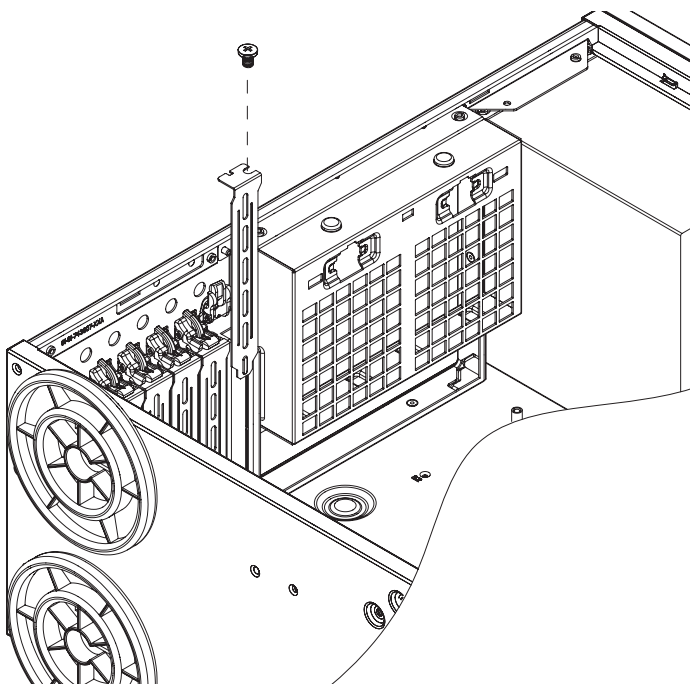
**Figure 5-19: Add-on Card/Expansion Card Port**

## **Expansion Card and PCI Slot Setup**

After the motherboard has been installed, expansion cards may be installed.

### ***Installing Expansion Cards***

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Locate the release tab on the top of the PCI slot bracket.
3. Gently apply pressure in the middle of the release tab to unlock the PCI slot bracket.
4. Pull the release tab upward.



**Figure 5-20: Remove PCI Card Slot Guard**

5. Remove the screw holding the bracket in place and pull the bracket from the chassis.
6. Install your PCI card or other add-on card into the PCI slot bracket and motherboard. To do this, slide the PCI card (with "L" bracket) into the PCI slot and secure the card to the motherboard.
7. Push the PCI bracket release tab down until it locks into place with an audible "click".
8. Secure the PCI card with the screw previously removed from the chassis.
9. Repeat this process with each PCI card you want to install into the chassis.



## 5-7 Installing the Air Shroud

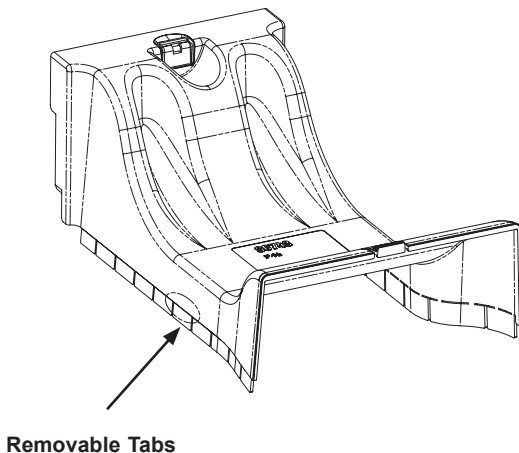


Figure 5-21: Air Shroud

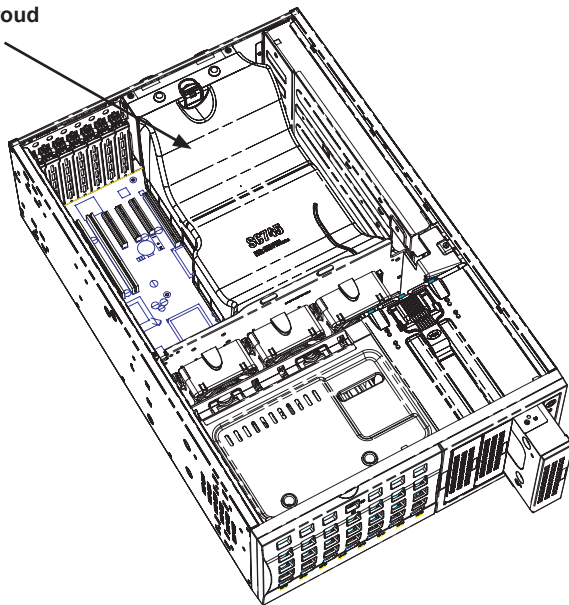
Air shrouds concentrate airflow to maximize fan efficiency. The SC745 chassis air shroud does not require screws to set up.

NOTE: The air shroud includes tabs that can be removed if motherboard components prevent the air shroud from fitting securely. Remove tabs only if necessary.

### *Installing the Air Shroud*

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Place air shroud in your chassis with the fan side touching the edge of the two fans closest to the power supply. The other side should cover both the rear fans.
3. Replace the chassis cover.

Air Shroud



**Figure 5-22: Air Shroud in Place**

### ***Checking the Airflow***

1. Make sure there are no objects to obstruct airflow in and out of the server.
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 the airflow through the chassis. Pull all excess cabling out of the airflow path or use shorter cables.
4. The control panel LEDs inform you of system status. See “Chapter 3: 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 or a power supply, 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.

## 5-8 System Fans

Five heavy-duty fans provide cooling for the chassis. Three fans are located in the front of the chassis with two fans in the rear. These fans circulate air through the chassis as a means of lowering the internal temperature of the chassis.

The fans come pre-installed to the chassis. Each fan is hot-swappable and can be replaced without removing any connections.

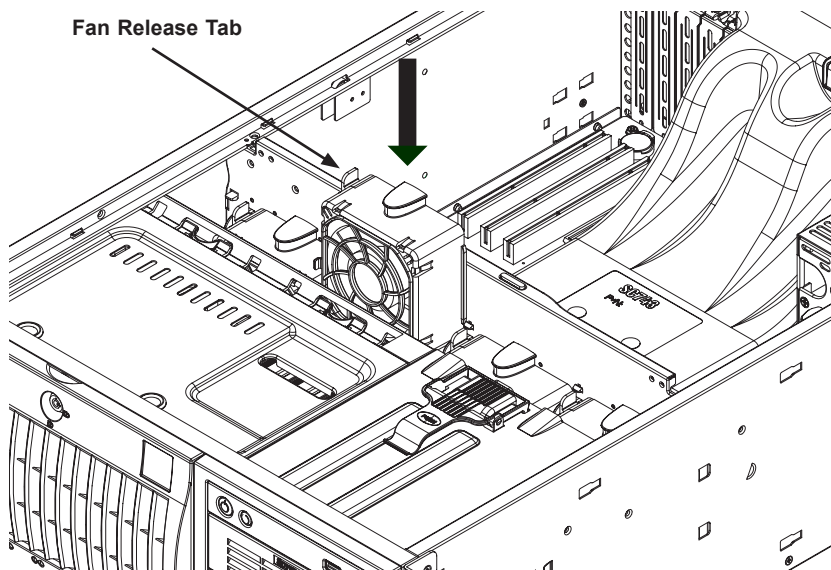
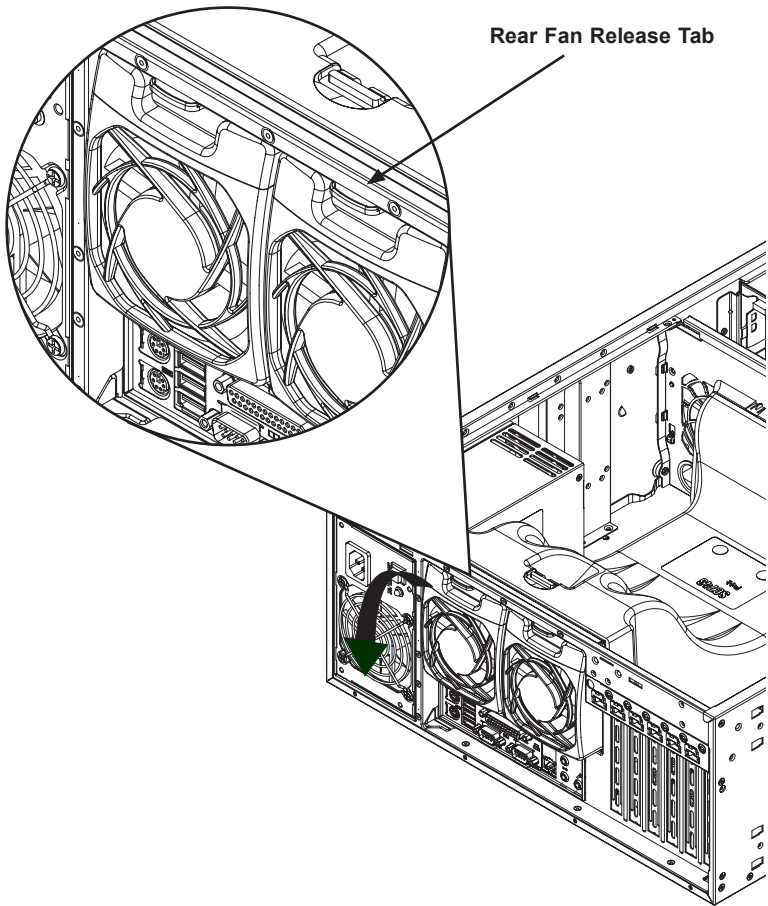


Figure 5-23: Front Chassis Fans

### *Replacing a System Fan*

1. Open the chassis cover and determine which fan has failed. Because the fans are hot-swappable, the chassis does not have to be powered-down.
2. Press the fan release tab and lift the failed fan from the chassis. Front fans must be pulled straight up. Rear fans must be tilted outward and then pulled out of the housing.
3. 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. As soon as the fan is connected, it will begin working.



**Figure 5-24: Rear Chassis Fans**

***Replacing a Rear Chassis Fan***

1. Press the rear fan release tab.
2. Pull the fan from the chassis top first.
3. Place the new fan in the chassis bottom first.
4. Push the fan fully into the housing until the fan clicks into place.

## 5-9 Power Supply

Depending on your chassis model, the SC745 chassis has an 800, 920, 1200 or 1280 Watt power supply. "R" model chassis feature a second redundant 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

In redundant power supply models, the system automatically switches to the second power supply when the first fails. If your system has only one power supply, the system shuts down in the unlikely event of a power failure.

#### *Replacing the Power Supply*

1. Power down the server and unplug the power cord. If your chassis includes a redundant power supply (two power modules), you can leave the server running and remove only one power supply.
2. Push the release tab on the back of the power supply.
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 it clicks into the locked position.
6. Plug the AC power cord back into the module and power up the server.

## Notes

## Chapter 6

# Rack Installation

### 6-1 Overview

This chapter provides a quick setup checklist to get your chassis up and running. Following these steps in the order given should enable you to have the system operational within a minimum amount of time.

### 6-2 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 you should file a damage claim with the carrier who delivered it.

Decide on a suitable location for the rack unit that will hold your chassis. It should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. You will also need it placed near a grounded power outlet. Be sure to read the Rack and Server Precautions in the next section.

### 6-3 Preparing for Setup

The box your chassis was shipped in should include two sets of rail assemblies, two rail mounting brackets and the mounting screws you will need to install the system into the rack. Please read this section in its entirety before beginning the installation procedures

#### Choosing a Setup Location

- Leave enough clearance in front of the rack to open the front door completely (25 inches).
- Leave approximately 30 inches of clearance in the back of the rack to allow for sufficient airflow and ease in servicing.
- This product is to be installed in a Restricted Access Location only, (dedicated equipment rooms, service closets and others).

## 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.

## General Server Precautions

- Review the electrical and general safety precautions that came with the components you are adding to your chassis.
- 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 hard 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 room temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (TMRA).

### ***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.).



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.

## 6-4 Rack Mounting Instructions

This section provides information on installing the SC745 chassis into a rack unit with the optional rail. There are a variety of rack units on the market, which may mean the assembly procedure will differ slightly. You should also refer to the installation instructions that came with the rack unit you are using.

**NOTE:** The outer rail is adjustable from 26" to 35.9".

### Removing the Top Cover and Feet

The SC745 chassis is shipped with the chassis top cover and feet pre-installed. Both the feet and cover must be removed before installing the rails.

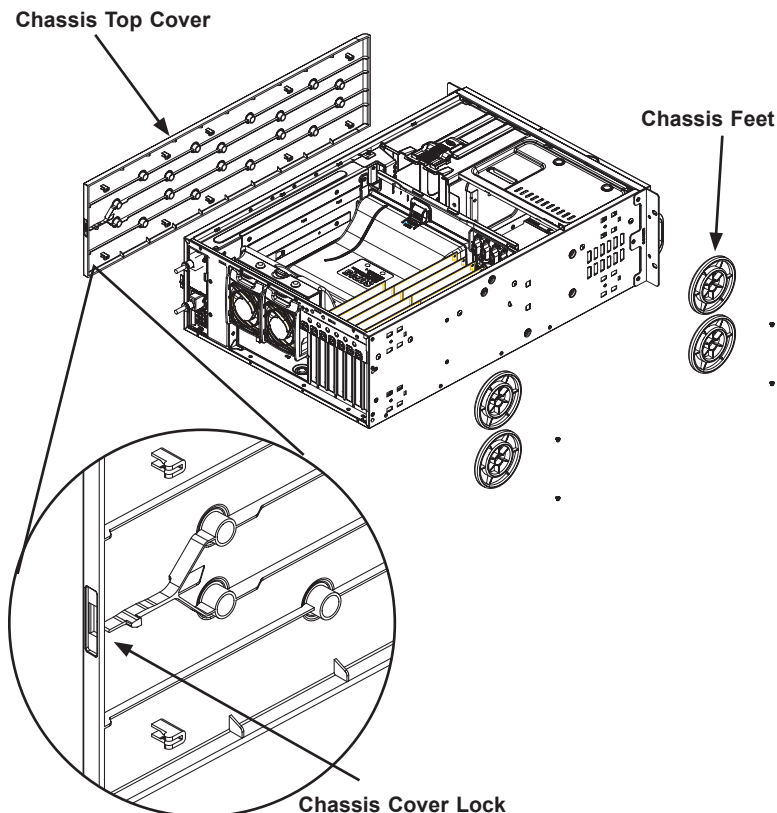


Figure 6-1: Remove Feet and Chassis Top Cover

### ***Removing the Top Cover***

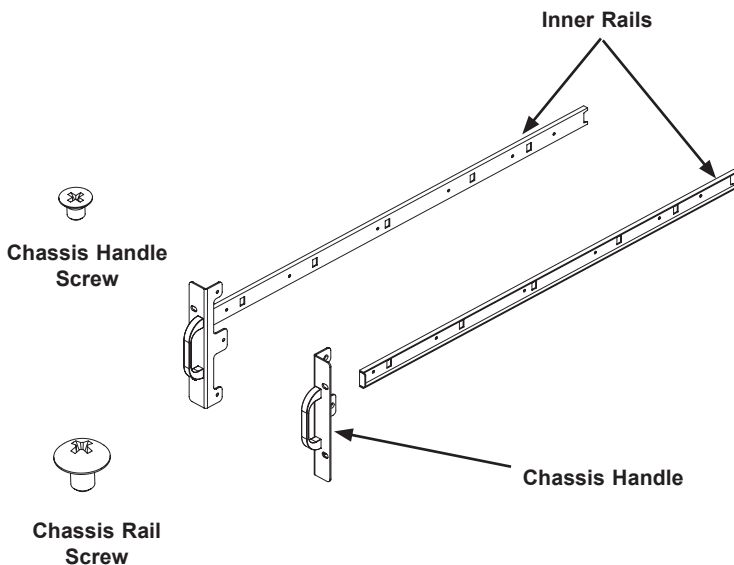
1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Locate the chassis cover lock (blue lever) at the rear of the chassis cover.
3. Slide the chassis cover lock to the right and push chassis cover forward.
4. Lift the chassis top cover off the chassis.

### ***Removing the Chassis Feet***

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Place the chassis on its side with the chassis side cover facing upward.
3. Remove the screw holding the chassis foot in place.
4. The foot lock is a tab located in the center of the foot that prevents the foot from sliding. -Using a flat head screwdriver, gently lift the foot lock upward and slide the foot toward the rear of the chassis.
5. Repeat steps 2 and 3 with each remaining foot.

## Identifying the Sections of the Rack Rails

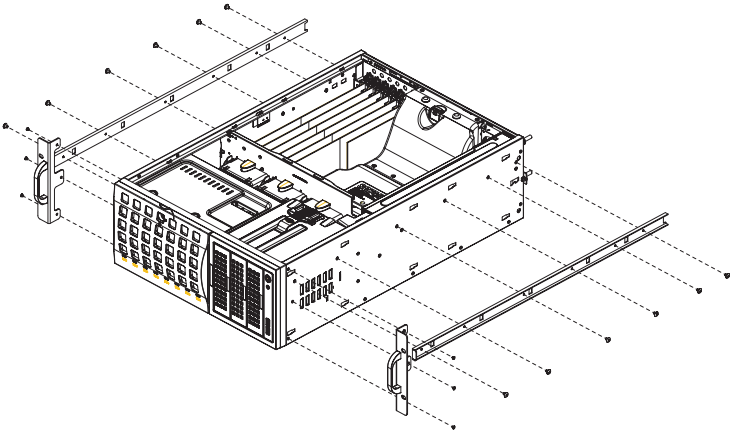
The chassis package includes two rack rail assemblies in the rack mounting kit. Each assembly consists of two sections: an inner fixed chassis rail that secures directly to the server chassis and an outer fixed rack rail that secures directly to the rack itself.



**Figure 6-2: Identifying the Inner Rails and Chassis Handles**



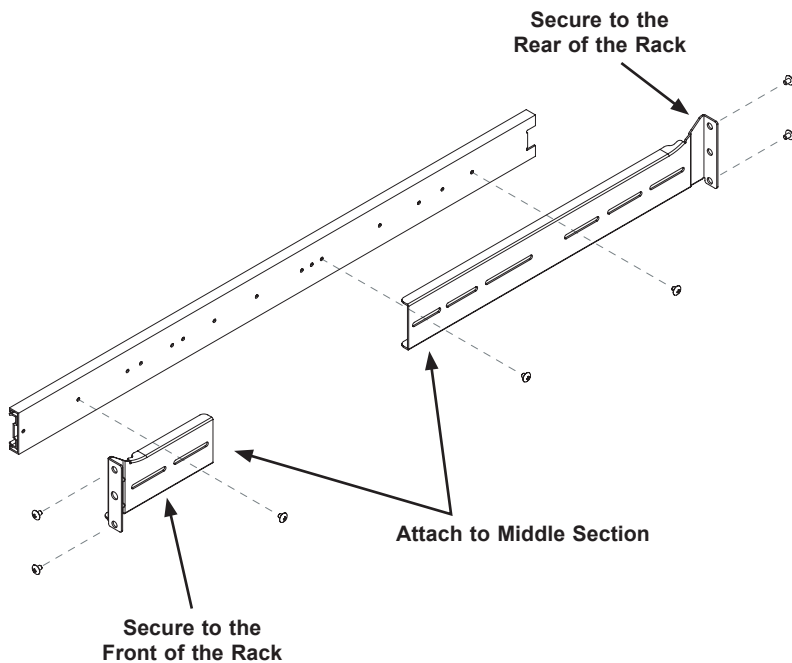
Warning: do not pick up the server by the front handles. They are designed to pull the system from a rack only.



**Figure 6-3: Installing the Inner Rack Rails**

***Installing the Chassis Handles and Inner Rails***

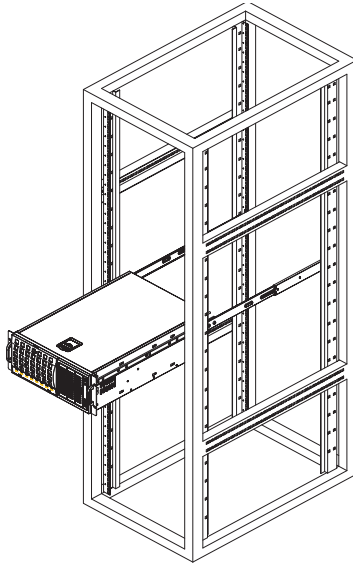
1. Locate the two chassis handles and six handle screws.
2. Align the chassis handle with the front of the chassis and secure with the three chassis handle screws.
3. Repeats steps 1 and 2 with the other handle.
4. Locate the two inner rails and twelve screws in the shipping package.
5. Align the inner rails against the chassis, as shown. Confirm that the rails are flushed against the edge of the chassis.
6. Tighten the screws. Do not over tighten.
7. Repeat steps 5 and 6 with the remaining inner rail.



**Figure 6-4: Assembling the Outer Rails**

#### ***Installing the Outer Rails onto the Rack***

1. Attach the front and rear short brackets to the outside of the long bracket. Both bracket ends must face the same direction.
2. Adjust both the brackets to the proper distance so that the rail fits snugly into the rack.
3. Secure the front side of the outer rail with two M5 screws and the rear side of the outer rail with three M5 screws. **NOTE:** The outer rail is adjustable from approximately 26" to 35.9".
4. Repeat steps 1-3 for the left outer rail.



**Figure 6-5: Installing the Chassis into a Rack**

Note: figures are for illustrative purposes only. Always install servers into racks from the bottom up.

### ***Installing the Chassis into a Rack***

1. Confirm that chassis includes the inner rails and the outer rails.
2. Line chassis rails with the front of the rack rails.
3. Slide the chassis rails into the rack rails, keeping the pressure even on both sides (it may be necessary to depress the locking tabs when inserting). When the server has been pushed completely into the rack, you should hear the locking tabs "click".



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.



Warning! When initially installing the server to a rack, test that the rail locking tabs engage to prevent the server from being overextended. Have a rack lift in place in case the test fails.

## 6-5 Tower Mounting Instructions

The SC745 chassis is shipped with the chassis cover and feet pre-installed. To use the chassis as a desktop server, no other installation is required.

Use the instructions in this section if you have converted the chassis for rack use and need to return the chassis to tower mounting.

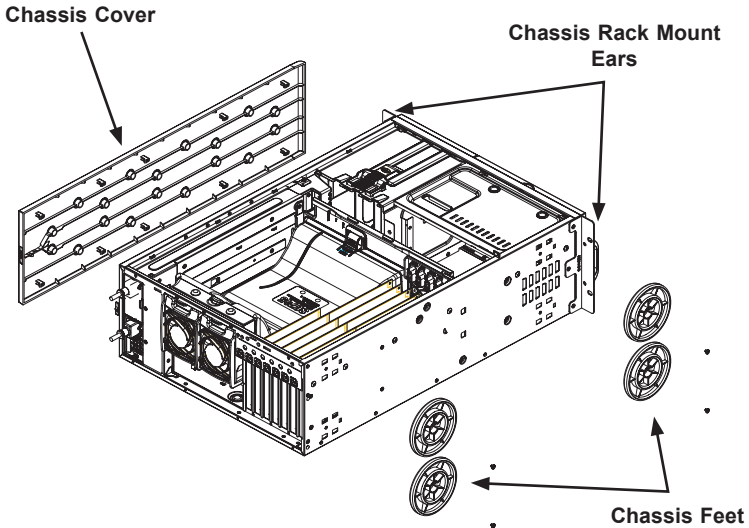
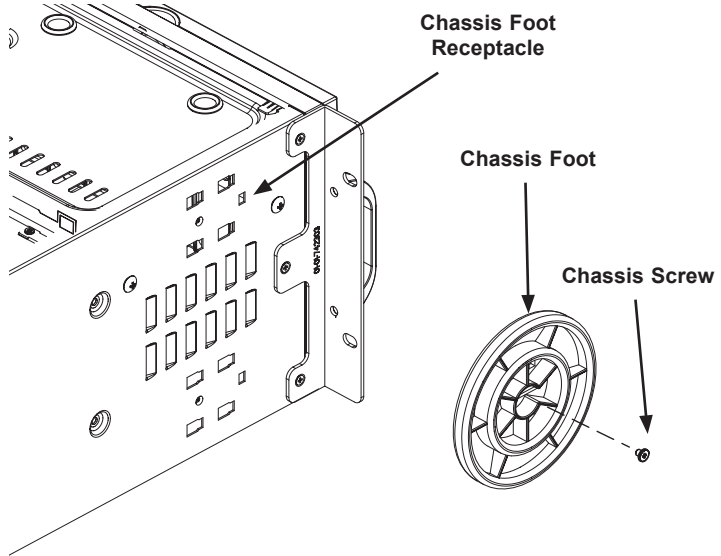


Figure 6-6: Adding Chassis Feet and Top Cover

### *Installing the Top Cover*

1. Power down the system and remove the power cords from the rear of the power supplies. Open the chassis cover as described in Section 5-3.
2. Remove the rack mount ears.
3. Align the cover post with the corresponding holes on the top of the chassis and place the cover on top of the chassis. The cover should overhang approximately one-half inch over the front of the chassis.
4. Slide the chassis cover toward the rear of the chassis to lock the cover into place.





**Figure 6-7: Placing Chassis Feet**

### ***Placing the Chassis Feet***

1. Place the chassis foot in the foot receptacle and slide the foot toward the front of the chassis. The foot should lock into place.
2. Secure the foot to the chassis using one screw enclosed in the packaging.
3. Repeat steps 1 and 2 for the remaining three chassis feet.

## Notes

## Appendix A

### SC745 Chassis Cables

#### A-1 Overview

This appendix lists supported cables for your chassis system. It only includes the most commonly used components and configurations. For more compatible cables, refer to the manufacturer of the motherboard you are using and our Web site at: [www.supermicro.com](http://www.supermicro.com).

#### A-2 Cables Included with SC745TQ Chassis (SAS/SATA)

Part #	Type	Length	Description
CBL-0157L	Cable	40 cm	8-pin to 8-pin ribbon cable for SGPIO, PB free
CBL-0087	Ribbon, Round	20"	16-pin to 16-pin ribbon cable for control panel
CBL-0044L	Cable	61 cm"	Serial ATA, lead free
CBL-0216L	Cable	200 mm	4-pin to 4-pin fan power extension cable (3)
-	Cable	6'	Regional power cord (X2 for redundant power supply models)

## A-4 Compatible Cables

The following cables are compatible with the SC745 chassis.

Some compatible motherboards have different connectors. If your motherboard has only one SAS connector that the SAS/SATA cables must share, use the following cable. This cable must be purchased separately.

**Cable Name:** SAS Cable

**Quantity:** 1

**Part #:** CBL-0288L

**Alt. Name:** iPass or "Small Four"

**Description:** This cable has one iPass (SFF-8087/Mini-SAS) connector (36-pin) at one end and four SAS/SATA connectors on the other end. This cable connects from the host (motherboard or other controller) to the backplane SAS/SATA hard drive port.

## Extending Power Cables

Although Supermicro chassis are designed with to be efficient and cost-effective, some compatible motherboards have power connectors located in different areas.

To use these motherboards you may have to extend the power cables to the motherboards. To do this, use the following chart as a guide.

<b>Power Cable Extenders</b>		
Number of Pins	Cable Part #	Length
24-pin	CBL-0042L	7.9"(20 cm)
20-pin	CBL-0059L	7.9"(20 cm)
8-pin	CBL-0062L	7.9"(20 cm)
4-pin	CBL-0060L	7.9"(20 cm)

## Front Panel to the Motherboard

The SC745 chassis includes a cable to connect the chassis front panel to the motherboard. If your motherboard uses a different connector, use split cable CBL-0084L.

# Notes

## Appendix B

### SC745 Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

<b>800W (Redundant = X2)</b>	
<b>MFR Part #</b>	PWS-801-1R
<b>Rated AC Voltage</b>	100 - 240V 50 - 60Hz 10 - 4 Amp
<b>+5V standby</b>	4 Amp
<b>+12V</b>	66 Amp
<b>+5V</b>	30 Amp
<b>+3.3V</b>	24 Amp
<b>-12V</b>	0.6 Amp

<b>920W (Redundant = X2)</b>	
<b>MFR Part #</b>	PWS-920P-1R
<b>AC Input</b>	100-240 V 50-60 Hz 11-4.5 Amp
<b>DC Output</b>	4 Amp @ +5V standby 75 Amp @ +12V
<b>With Power Distributor</b>	+5V: 30 Amp +3.3V: 24 Amp -12V: 0.6 Amp

<b>1200W (Redundant = X2)</b>	
<b>MFR Part #</b>	PWS-1K21P-1R
<b>Rated AC Voltage</b>	100 - 140V, 50 - 60Hz, 8 - 11.5 Amp 180 - 240V, 50 - 60Hz, 5.5 - 8 Amp
<b>DC Output +12V</b>	1000W, 83 Amp @ 100-140V 1200W, 100 Amp @ 180-240V 5Vsb: 4A
<b>DC Output with PDB</b>	+5V: 50 Amp +3.3V: 30 Amp -12V: 0.6 Amp



<b>1280W (Redundant)</b>	
<b>MFR Part #</b>	PWS-1K28P-SQ
<b>AC Input</b>	1000W Output @ 100-140V, 12-8A, 50-60Hz 1280W Output @ 180-240V, 8-6A, 50-60Hz
<b>DC Output</b>	1000W: +12V/83A; +5Vsb/4A 1280W: +12V/106.7A, +5Vsb/4A





## Appendix C

### BPN-SAS-743TQ 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.

#### 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 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.

### **C-4 Introduction to the SAS-743TQ Backplane**

The SAS-743TQ backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects SAS-743TQ Revision 3.00, 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.

## C-5 Front Connectors

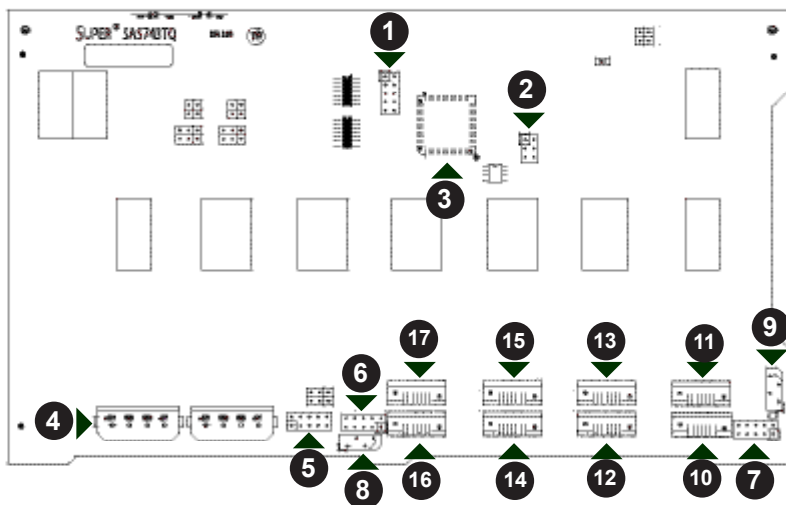


Figure C-1: Front Connectors

- |  |                     |
|--|---------------------|
| 1. JTAG Connector: JP47                        | 10. SAS Port #0 J5  |
| 2. Upgrade Connector: JP46                     | 11. SAS Port #1 J6  |
| 3. Chip: MG9072                                | 12. SAS Port #2 J7  |
| 4. Power Connectors (4-pin): JP10,<br>and JP13 | 13. SAS Port #3 J8  |
| 5. ACT IN: JP26                                | 14. SAS Port #4 J10 |
| 6. Sideband Connector #2 JP52                  | 15. SAS Port #5 J12 |
| 7. Sideband Connector #1 JP51                  | 16. SAS Port #6 J14 |
| 8. I <sup>2</sup> C Connector #2 JP45          | 17. SAS Port #7 J16 |
| 9. I <sup>2</sup> C Connector #1 JP44          |                     |

## 2-2 Front Connector and Pin Definitions

### #1. and #2. JTAG Connector and Upgrade Connectors

The JTAG and Upgrade connectors, designated JP47 and JP46, are used for diagnostic purposes. These connectors should be used by a certified and experienced technician.

### #3. MG9072 Chip

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

### #4. 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

### #5. Activity LED Header

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 LED Header to work properly, connect using a 10-pin LED cable.

**#6. and #7. Sideband Headers**

The sideband headers are designated JP51 and JP52. For SES-2 to work properly, you must connect an 10-pin sideband cable. See the table to the right for pin definitions.

Sideband Headers			
Pin #	Definition	Pin #	Definition
2	Backplane Addressing (SB5)	1	Controller ID (SB6)
4	Reset (SB4)	3	GND (SB2)
6	GND (SB3)	5	SDA (SB1)
8	Backplane ID (SB7)	7	SCL (SB0)
10	No Connection	9	No Connection

**#8. and #9. I<sup>2</sup>C Connectors**

The I<sup>2</sup>C Connectors, designated JP44 and JP45, are used to monitor 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

**#10. - #17. SAS Ports**

The SAS ports are used to connect the SAS drive cables. The 8 ports are designated #0 - #7. Each port is also compatible with SATA drives. However, do NOT mix SAS and SATA drives in the same enclosure.

## 2-3 Front Jumper Locations and Pin Definitions

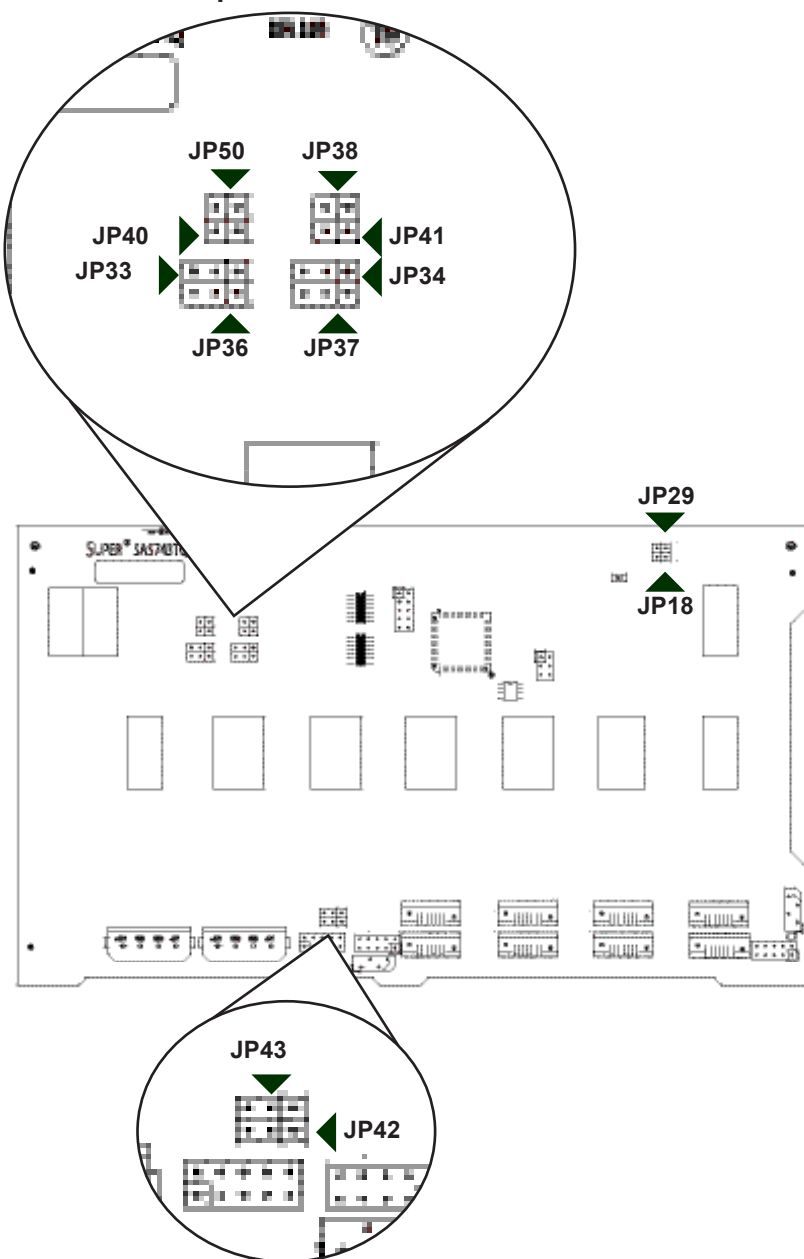
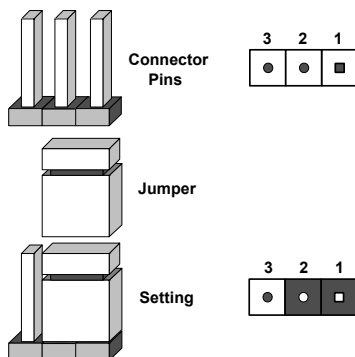


Figure C-2: Front Jumpers

## 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
JP18	Open: Enabled Closed: Disabled	Buzzer reset*
JP29	Open: Default Closed: Reset	MG9072 chip 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. Fan failure
3. System temperature over 45° Celsius.

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

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

I <sup>2</sup> C and SGPIO Settings			
Jumper	I <sup>2</sup> C Jumper Setting (Default)	SGPIO Jumper Setting	Note
JP33	Pins 2-3	Pins 1-2	Controller ID #1
JP34	Pins 1-2:ID#0	Pins 1-2	Backplane ID #1
JP36	Pins 2-3	Pins 1-2	Controller ID #2
JP37	Pins 2-3:ID#1	Pins 1-2	Backplane ID #2
JP38	Closed	Open	I <sup>2</sup> C Reset #2
JP40	Open	Closed	I <sup>2</sup> C Reset SDOOUT #1
JP41	Open	Closed	I <sup>2</sup> C Reset SDOOUT #2
JP42	Pins 2-3	Pins 1-2	Backplane ID SDIN #1
JP43	Pins 2-3	Pins 1-2	Backplane ID SDIN #2
JP50	Closed	Open	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 you connect the SAS ports out of order, you will not be able to easily 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

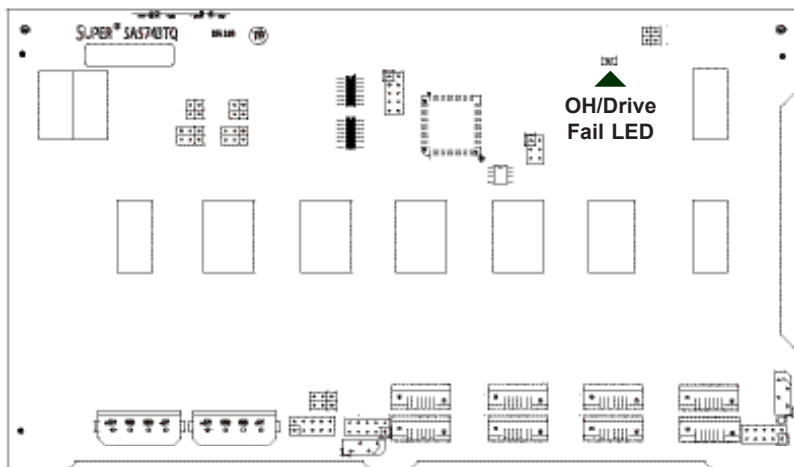


Figure C-3: Front LEDs

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

## 2-4 Rear Connectors and LED Indicators

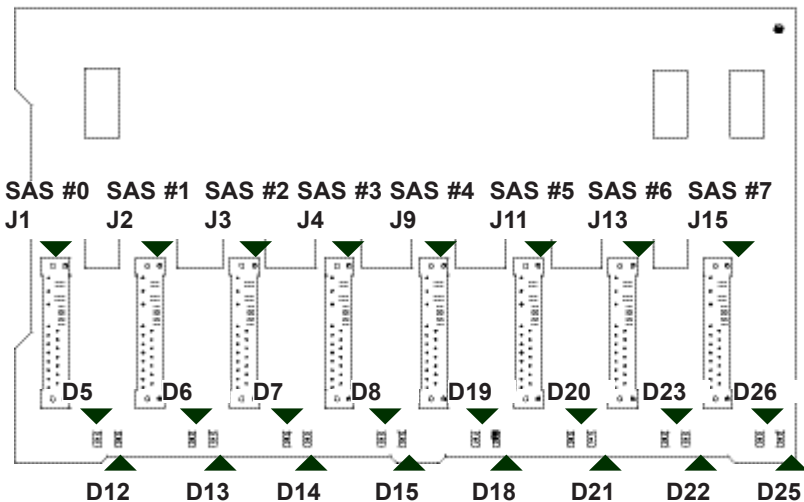


Figure C-4: Rear Connectors

Rear SAS/SATA Connectors	
Rear Connector	SAS Drive Number
SAS #0	SAS/SATA HHD #0
SAS #1	SAS/SATA HHD #1
SAS #2	SAS/SATA HHD #2
SAS #3	SAS/SATA HHD #3
SAS #4	SAS/SATA HHD #4
SAS #5	SAS/SATA HHD #5
SAS #6	SAS/SATA HHD #6
SAS #7	SAS/SATA HHD #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

## Notes

Disclaimer (cont.)

The products sold by Supermicro are not intended for and will not be used in life support systems, medical equipment, nuclear facilities or systems, aircraft, aircraft devices, aircraft/emergency communication devices or other critical systems whose failure to perform be reasonably expected to result in significant injury or loss of life or catastrophic property damage. Accordingly, Supermicro disclaims any and all liability, and should buyer use or sell such products for use in such ultra-hazardous applications, it does so entirely at its own risk. Furthermore, buyer agrees to fully indemnify, defend and hold Supermicro harmless for and against any and all claims, demands, actions, litigation, and proceedings of any kind arising out of or related to such ultra-hazardous use or sale.