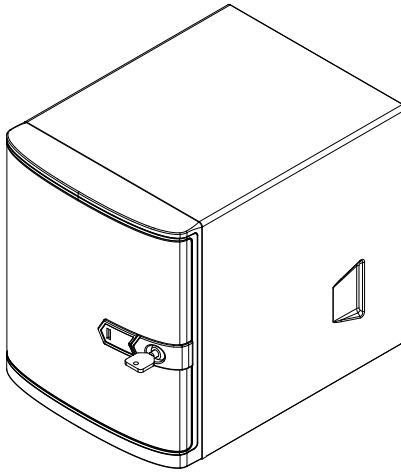




SC721 CHASSIS SERIES



SC721TQ-250B

USER'S MANUAL

1.0

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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 SC721 chassis. Installation and maintenance should be performed by experienced technicians only.

The SC721 chassis is a compact (9.45" tall) mini-tower chassis with rich feature sets. It supports a wide range of Mini-ITX motherboards from the Intel Atom, to the Core i7 CPU (Default design for 84W TDP CPU). With 4x 3.5" hot-swappable drives and 1x Low profile AOC slot, the SC721 chassis is ideal for small office, home server and cloud storage applications.

Manual Organization

Chapter 1 Introduction

The first chapter provides a description of the main components included with this chassis and describes the main features of the SC721 chassis. This chapter also includes contact information.

Chapter 2 Standardized Warning Statements for AC Systems

This chapter lists warnings, precautions, and system safety. It is recommended that you thoroughly familiarize yourself with the safety precautions before installing and servicing this chassis.

Chapter 3 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 4 Chassis Setup and Maintenance

Follow the procedures given in this chapter when installing, removing, or reconfiguring your chassis.

Appendix A Chassis Cables, Screws and Other Accessories

Appendix B Power Supply Specifications

Appendix C BPN-SAS-733TQ Backplane Specifications

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Chapter 1

Introduction

1-1 Overview

Supermicro's SC721 chassis features a unique and highly-optimized design, allowing most configuration of the chassis to be accomplished without tools or screws. The chassis is equipped with high-efficiency power supply. High-performance fans provide ample optimized cooling for FB-DIMM memory modules, and four hot-swap drive bays offer maximum storage capacity (Default Design for 84W TDP CPU).

1-2 Shipping Lists

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

SC721 Chassis			
Model	Drives	PCI Slots	Power Supply
SC721TQ-250B	4x 3.5" hot-swap HDD carriers 2x 2.5" fixed HDD brackets	1x FF	250W High-efficiency 80 Plus Bronze Certified



1-3 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 (General Information)
support@supermicro.com (Technical Support)

Website: 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 (General Information)
support@supermicro.nl (Technical Support)
rma@supermicro.nl (Customer Support)

Website: 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

Website: www.supermicro.com.tw

1-4 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 shipping 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

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.

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 במלוואו 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.

اقر إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

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: 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(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。

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 יותר מ-250 V, 20 A

هذا المنتج يعتمد على معدات الحماية من 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

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 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

此装置连接的電源可能不只一個，必須切斷所有電源才能停止對該裝置的供電。

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

当系統正在进行时，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 يمثل 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.

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、提供または指定された接続ケーブル、電源コードとACアダプターを使用下さい。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連接線，電源線和電源適配器。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連接線，電源線和電源適配器。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

Bei der Installation des Produkts, die zur Verfügung gestellten oder benannt Anschlusskabel, Stromkabel und Netzteile. Verwendung anderer Kabel und Adapter kann zu einer Fehlfunktion oder ein Brand entstehen. Elektrische Geräte und Material Safety Law verbietet die Verwendung von UL-oder CSA-zertifizierte Kabel, UL oder CSA auf der Code für alle anderen elektrischen Geräte als Produkte von Supermicro nur bezeichnet gezeigt haben.

¡Advertencia!

Al instalar el producto, utilice los cables de conexión previstos o designados, los cables y adaptadores de CA. La utilización de otros cables y adaptadores podría ocasionar un mal funcionamiento o un incendio. Aparatos Eléctricos y la Ley de Seguridad del Material prohíbe el uso de UL o CSA cables certificados que tienen UL o CSA se muestra en el código de otros dispositivos eléctricos que los productos designados por Supermicro solamente.

Attention

Lors de l'installation du produit, utilisez les bables de connection fournis ou désigné. L'utilisation d'autres cables et adaptateurs peut provoquer un dysfonctionnement ou un incendie. Appareils électroménagers et de loi sur la sécurité Matériel interdit l'utilisation de UL ou CSA cables certifiés qui ont UL ou CSA indiqué sur le code pour tous les autres appareils électriques que les produits désignés par Supermicro seulement.

חשמליים ומתאמי AC

!אזהרה

כאשר מתקינים את המוצר, יש להשתמש בכבלים, ספקים ומתאמים AC אשר נועדו וסופקו לשם כך. שימוש בכל כבל או מתאם אחר יכול לגרום לתקלה או קצר חשמלי. על פי חוקי שימוש במכשירי חשמל וחוקי בטיחות, קיים איסור להשתמש בכבלים המוסמכים ב- UL או ב- CSA (כשאר מופיע עליהם קוד של UL/CSA) עבור כל מוצר חשמלי אחר שלא צויין על ידי סופרמיקרו בלבד.

عند تركيب الجهاز يجب استخدام كابلات التوصيل، والكابلات الكهربائية ومحولات التيار المتردد التي . أن استخدام أي كابلات ومحولات أخرى يتسبب في حدوث عطل أو حريق. تم توفيرها لك مع المنتج الأجهزة الكهربائية ومواد قانون السلامة يحظر استخدام الكابلات CSA أو UL معتمدة من قبل لأي أجهزة كهربائية أخرى غير المنتجات المعينة من قبل Supermicro (التي تحمل علامة UL/CSA)

경고!

제품을 설치할 때에는 제공되거나 지정된 연결케이블과 전원케이블, AC 어댑터를 사용해야 합니다. 그 밖의 다른 케이블들이나 어댑터들은 고장 또는 화재의 원인이 될 수 있습니다. 전기용품안전법 (Electrical Appliance and Material Safety Law)은 슈퍼마이크로에서 지정한 제품들 외에는 그 밖의 다른 전기 장치들을 위한 UL 또는 CSA에서 인증한 케이블(전선 위에 UL/CSA가 표시)들의 사용을 금지합니다.

Waarschuwing

Bij het installeren van het product, gebruik de meegeleverde of aangewezen kabels, stroomkabels en adapters. Het gebruik van andere kabels en adapters kan leiden tot een storing of een brand. Elektrisch apparaat en veiligheidsinformatiebladen wet verbiedt het gebruik van UL of CSA gecertificeerde kabels die UL of CSA die op de code voor andere elektrische apparaten dan de producten die door Supermicro alleen.

Notes

Chapter 3

Chassis Components

This chapter describes some common components included with your chassis. For the latest information and shipping lists, visit: www.supermicro.com.

3-1 Components

Drive Bays

The SC721 chassis supports the drives below:

- Four hot-swappable 3.5" hard drives.
- Two internal fixed 2.5" hard drives.

Motherboard Support

Supports a wide range of Mini-ITX motherboards, from ATOM to Core i7

Power Supply

Each chassis includes a high-efficiency power supply. The 250W unit has an 80+ Bronze level certification.



Fans

The chassis includes a 9cm rear fan with 25db whisper quiet operation, and an optional 8cm front fan.



PCI Slots

The chassis includes one low-profile PCI slot for expansion cards.

Control Panel Buttons and LED Indicators

The chassis includes a power button, a reset button and LED status indicators which will keep you constantly advised of the system status. The descriptions in Chapter 4 of this manual will provide a description of each button and LED, and will describe any actions you may need to take in the event of a system status change.

3-2 Unpacking the System

Inspect the box in which the chassis was shipped and note if it was damaged. If the chassis itself shows damage, file a damage claim with the carrier.

3-3 Where to Get Replacement Components

Infrequently, you may need replacement parts for your system. To ensure the highest level of professional service and technical support, we recommend purchasing exclusively from our Supermicro Authorized Distributors/System Integrators/Resellers. A list of Supermicro Authorized Distributors/System Integrators/Resellers can be found at: <http://www.supermicro.com>. Click the **Where to Buy** link.

Chapter 4

System Interface

4-1 Overview

The SC721 chassis includes a control panel which is located on the front of the chassis, behind the front bezel. that houses power buttons and status monitoring lights. These elements are described in this chapter with possible responses.

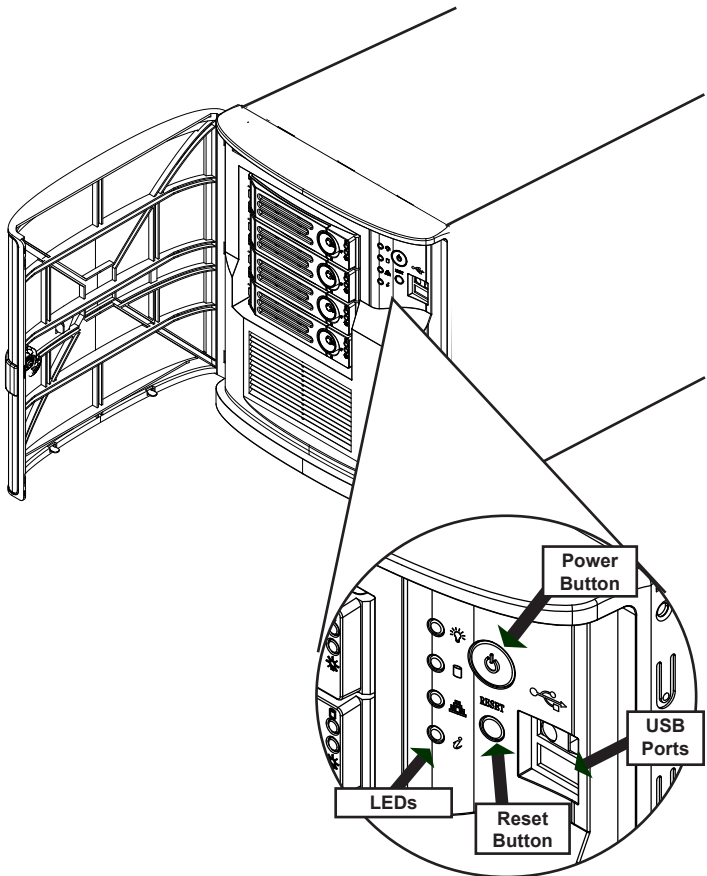


Figure 4-1. Front Chassis Panels

4-2 Control Panel Buttons



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 performing most maintenance tasks.



Reset: The reset button is located below the power button and allows you to manually reset the system.

4-3 Control Panel LEDs

There are four control panel LEDs that provide status information about the system.



Power:

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



HDD:

Indicates activity on the HDDs or peripheral drives when flashing.



NIC1:

Indicates network activity when flashing.



Information LED:

Alerts operator of several states, as noted in the table below.

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.

Overheating

There are several possible responses if the system overheats.

If the system overheats:

1. Use the LEDs to determine the nature of the overheating condition.
2. Confirm that the chassis cover is installed properly.
3. Check the routing of the cables and make sure all fans are present and operating normally.
4. Verify that the heatsinks are installed properly.

Notes

Chapter 5

Chassis Setup and Maintenance

5-1 Overview

This chapter covers the steps required to install components and perform maintenance on the chassis. Most components of the SC721 do not require tools or screws to set them up. Those components which must be secured with screws require only a Phillips screwdriver.

5-2 Removing Power from the System

Before performing some setup or maintenance tasks, use the following procedure to ensure that power has been removed from the system.

1. Use the operating system to power down the system, following the on-screen prompts.
2. After the system has completely shut-down, carefully grasp the head of the power cord and gently pull it out of the back of the power supply. If your system has dual power supplies, remove the cords from both power supplies.
3. Disconnect the cord from the power strip or wall outlet.

5-3 Removing the Chassis Cover

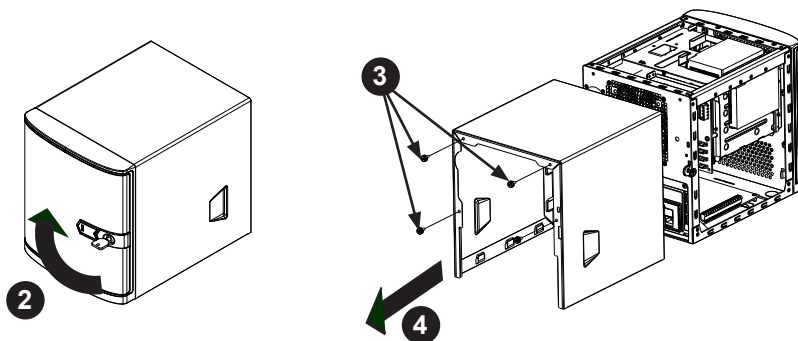


Figure 5-1. Removing the Chassis Cover

Removing the Chassis Side Cover

1. Power down the system and unplug the power cord from the power supply as described in Section 5-2.
2. Insert the key into the lock on the front bezel, turn the key counterclockwise and open up the front bezel.
3. Remove the three screws securing the cover to the chassis and set them aside for later use.
4. 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.

5-4 Removing and Installing Hard Drives

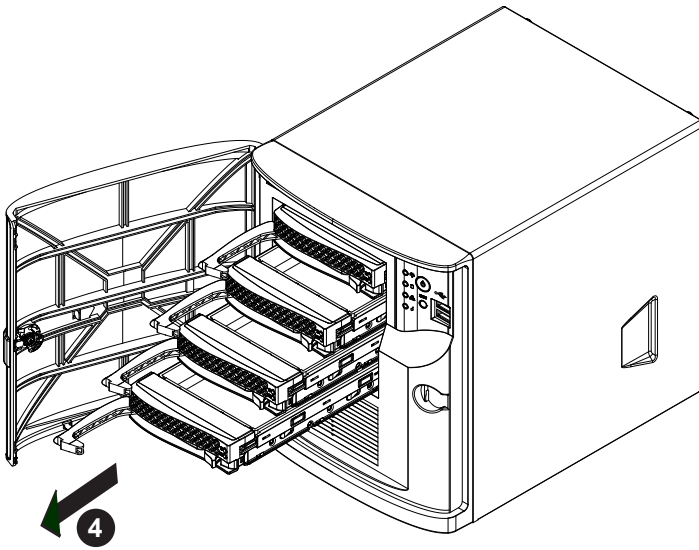


Figure 5-2. Removing the Hard Drive Carrier from the Hard Drive Chassis

The SC721 chassis supports four 3.5" hot-swappable hard drives in hard drive carriers. These hard drives can be removed from the chassis without powering down the system.

Removing 3.5" Hot-Swap Hard Drives

1. Unlock the front bezel and swing it open.
2. Press the release tab on the hard drive carrier, this will extend the hard drive carrier handle.
3. Use the hard drive carrier handle to pull the hard drive out of the chassis.

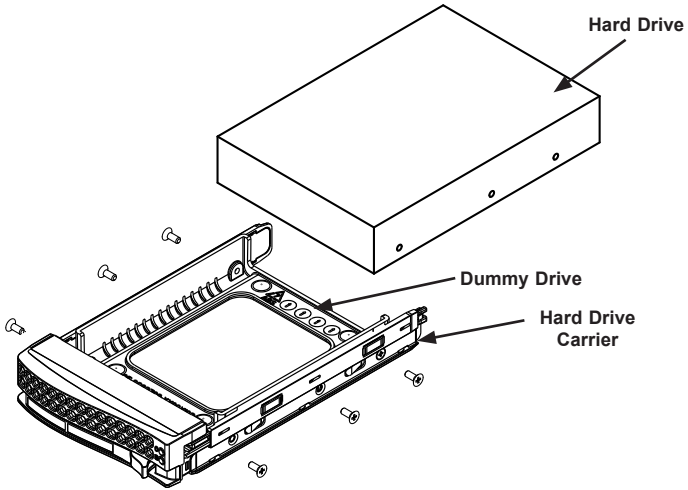


Figure 5-3. Installing a Hard Drive into Hard Drive Carrier

Installing a Hard Drive into the Hard Drive Carrier

1. Remove the six screws which secure the dummy drive into the hard drive carrier.
2. Remove the dummy drive from the hard drive carrier.
3. Install a new hard drive into the hard drive carrier with the printed circuit board side facing down so that the mounting holes in the drive align with those in the carrier.
4. Secure the hard drive by tightening all six screws.

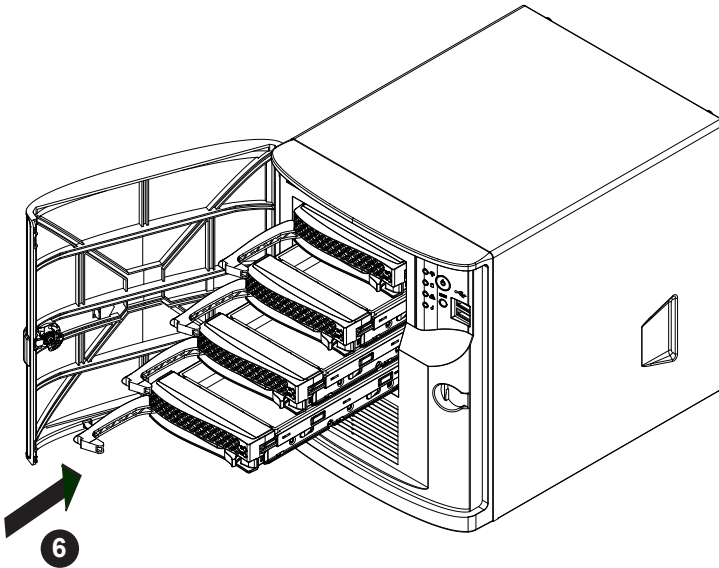


Figure 5-4. Installing the Hard Drive Carrier into the Hard Drive Cage

Installing 3.5" Hot-Swap Hard Drives

1. Insert the new hard drive into the hard drive carrier.
2. Insert the hard drive carrier into the hard drive cage, sliding it towards the back of the the hard drive cage until it clicks into a locked position.
3. Use the drive carrier handle to push the hard drive and hard drive carrier into the chassis hard drive bay and close the handle until the drive carrier clicks into the locked position.
4. Close and lock the front bezel.

5-5 Installing the Internal Fixed Hard Drives

The SC721 supports two internal 2.5" SATA fixed hard drives, one top mounted drive and one side mounted drive.

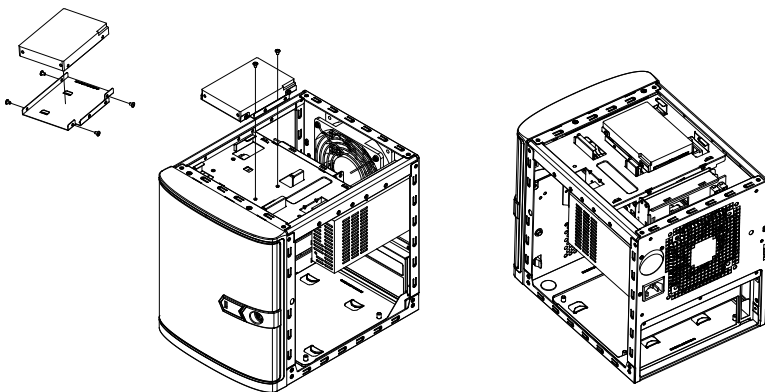


Figure 5-5. Installing the Top Mounted Fixed Hard Drive

Installing the Top Mounted Fixed Hard Drive

1. Power down the system and plug the power cord into the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Place the 2.5" hard drive into the hard drive bracket and secure the hard drive to the bracket with the four screws provided.
3. Place the hard drive and bracket into the top mounting position of the chassis as illustrated above and secure it to the chassis with two screws.
4. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

5-6 Installing the Side Mounted Fixed Hard Drive

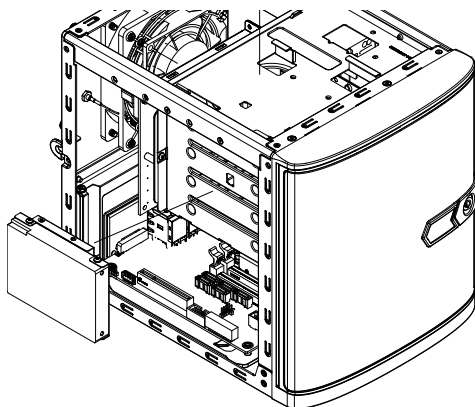


Figure 5-6. Installing the Side Mounted Fixed Hard Drive

Installing the Side Mounted Fixed Hard Drive

1. Power down the system and plug the power cord into the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Place the 2.5" hard drive into the hard drive bracket and secure the hard drive to the bracket with the four screws provided.
3. Place the hard drive and bracket into the side mounting position of the chassis by inserting the pin on the bracket into the mounting hole on the chassis as illustrated above.
4. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

5-7 Installing the I/O Shield and Motherboard

The SC721 supports a wide range of Mini-ITX motherboards, which are sold separately and come with an I/O shield specific to the motherboard. The motherboard and the I/O shield are housed in a removable tray, located on the rear of the chassis.

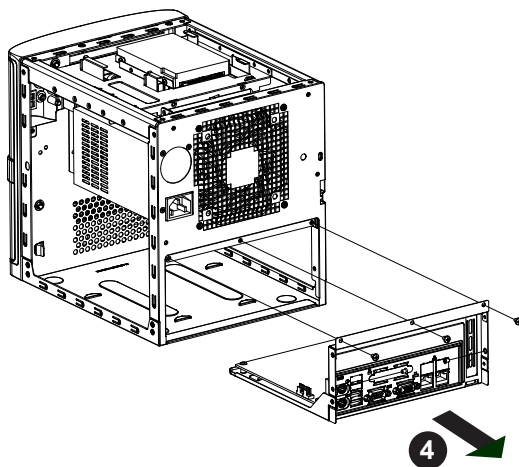


Figure 5-7. Removing the Rear Tray from the Chassis

I/O Shield and Motherboard Installation

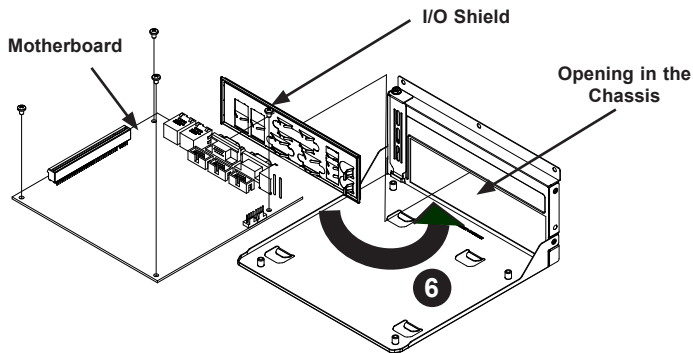
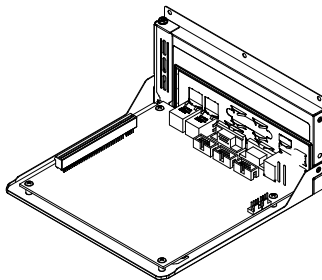
An I/O shield holds the motherboard ports in place. Install the I/O shield before you install the motherboard.

Removing the Rear Tray

1. Review the documentation that came with the motherboard. Become familiar with component placement, requirements, and safety precautions.
2. Power down the system and unplug the power cord from the power supply as described in Section 5-2, then remove the chassis cover as described in Section 5-3.
3. Remove the three screws securing the rear tray to the rear of the chassis and set them aside for later use.
4. Pull the rear tray out from the chassis.

Installing the Motherboard and I/O Shield

1. With the illustrations facing the outside of the chassis, insert the motherboard ports through the openings in the I/O shield.
2. Slide the I/O shield into the opening in the rear of the chassis.
3. Once installed, the motherboard will hold the I/O shield in place.
4. Slide the tray back into the rear of the chassis.
5. Plug the power cord into the rear of the power supply and power up the system.

**Figure 5-8. Installing the Motherboard and I/O Shield into the Rear Tray****Figure 5-9. Motherboard and I/O Shield Installed in the Rear Tray**

5-8 Hardware Security

The SC721 features multiple locking devices to help deter hardware theft and protect user data. While no lock is infalable, it is recommended that users keep their systems locked when not in use.

Front Bezel Lock

The SC721 has a locking front bezel to protect against unauthorized removal of the hard drives. Use the key provided to lock and unlock the bezel. Always remove the key from the lock and store the key in a secure place.

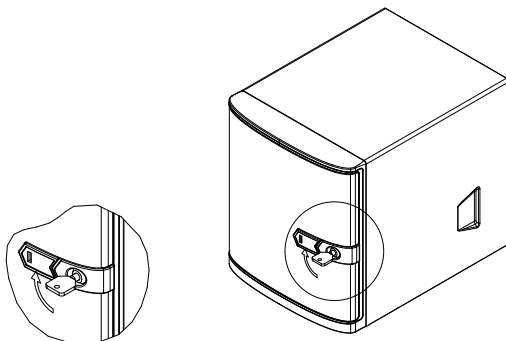


Figure 5-10. Front Bezel Lock

Rear Chassis Hasp

Unauthorized entry through the rear of the chassis may be discouraged by placing a lock on the rear of the chassis. The SC721 chassis is equipped with a rear chassis hasp that can accommodate a variety of commonly available locks (not included).

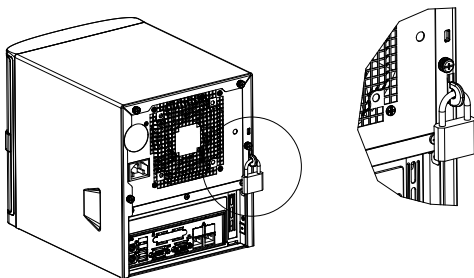


Figure 5-11. Rear Bezel Lock

Kensington Cable Slot (K-Slot)

The SC721 chassis features a Kensington cable slot or K-slot. This slot accepts a standard Kensington cable locking device (not included). Attach the loop end of the cable to a secure object, then insert the device into the K-slot as illustrated below.

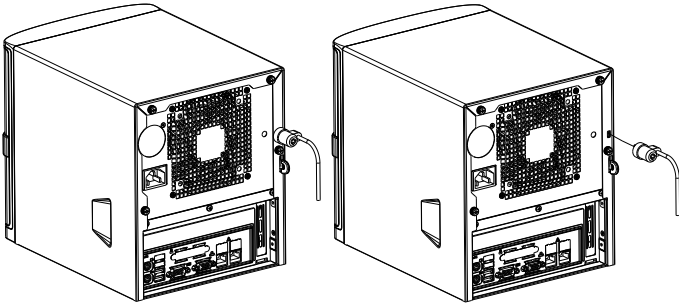


Figure 5-12. Inserting a Kensington Cable Device (Not Included)

5-9 Installing the DVD-ROM Drive

The SC721 chassis supports one DVD-ROM drive.

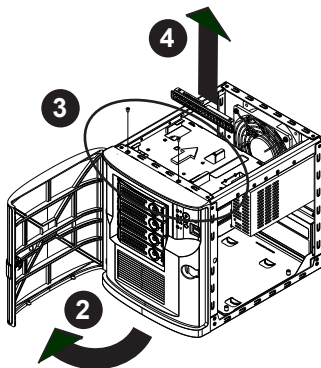


Figure 5-13. Configuring the Chassis for the DVD-ROM Drive

Installing the DVD-ROM Drive

1. Power down the system and remove the power cord from the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Unlock the front bezel and swing it open.
3. Remove the two screws securing the cover plate to the front of the chassis and set them aside for later use.
4. Some SC721 chassis include a top hard drive bracket. Remove this bracket if it is present by carefully grasping the bracket at the back of the DVD-ROM bay and gently removing it from the back of the drive bay. Lift it up and out of the chassis.
5. Install the bracket rail (A) onto the lefthand side of the device, and secure it with the two screws provided.

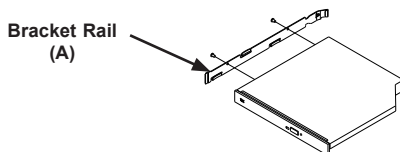


Figure 5-14. Securing the Bracket Rail to the DVD-ROM Drive

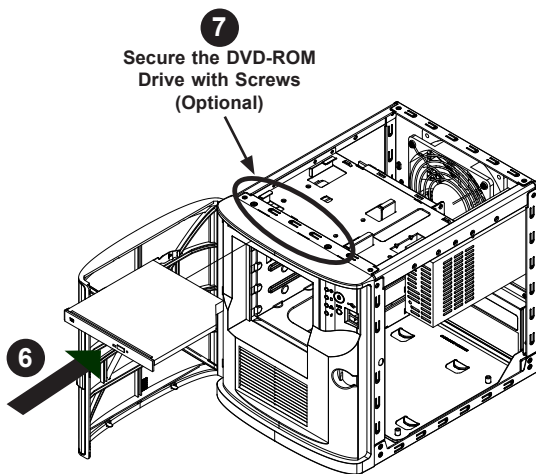


Figure 5-15. Installing the DVD-ROM Drive

6. Slide the DVD-ROM drive into the chassis.
7. If desired, secure the DVD-ROM drive with two screws as illustrated above.
8. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

5-10 Installing Expansion Cards

The SC721 chassis includes one PCI slot for an expansion card.

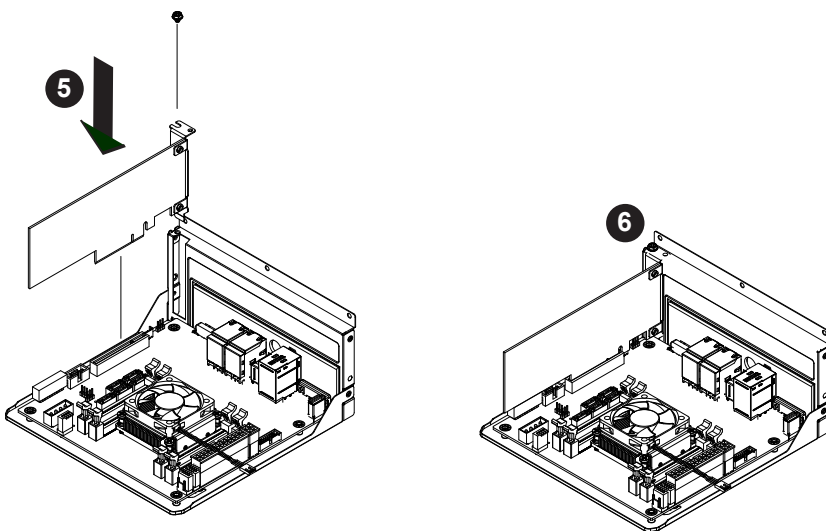


Figure 5-16. Installing the Expansion Card

Installing the Expansion Card

1. Power down the system and remove the power cord from the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Remove the rear tray from the chassis as described in Section 5-8.
3. Remove the screw securing the PCI slot cover over the PCI slot in the rear of the tray and set it aside for later use.
4. Slide the PCI slot cover up and out of the PCI slot.
5. Simultaneously, slide the card and its bracket into the slot on the chassis, and insert the card into its slot on the motherboard.
6. Secure the bracket of the expansion card with the screw previously set aside.
7. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

5-11 Installing the Rear Exhaust Fan

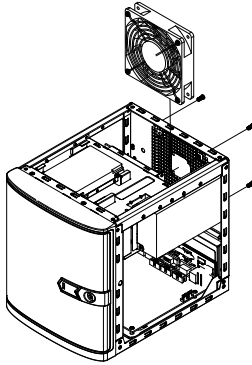


Figure 5-17. Installing the Exhaust Fan

The SC721 includes a 12 cm rear exhaust fan that provides cooling for the chassis. The chassis features a set of mounting holes which will support a standard 9 cm exhaust fan (fan not included).

Installing the Exhaust Fan

1. Power down the system and remove the power cord from the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Align the mounting holes in the fan module with the mounting holes in the rear of the chassis.
3. Secure the fan to the rear of the chassis with four screws.
4. Connect the fan cable to the motherboard.
5. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

5-12 Replacing the Power Supply

The SC721 chassis includes a 250 Watt power fixed supply. In the unlikely event that it becomes necessary to replace the power supply, follow the instructions below.

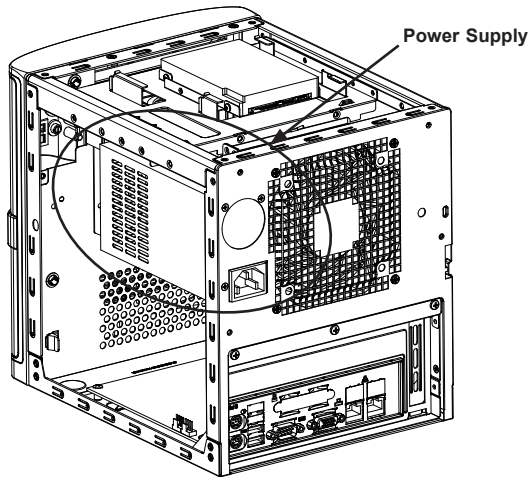


Figure 5-18. Removing the Power Supply

Changing the Power Supply

1. Power down the system and remove the power cord from the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Remove the screws securing the power supply to the chassis, which are located on the rear of the chassis. Set these screws aside for later use.
3. Gently remove the power supply from the the chassis.
4. Replace the failed power supply with an identical power supply model.
5. Secure the new power supply using the screws previously set aside.
6. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

5-13 Replacing the Backplane

The SC721 chassis includes a BPN-SAS-733TQ backplane. In the unlikely event that it becomes necessary to replace the backplane, follow the instructions below. Detailed information on backplane settings are provided in Appendix C BPN-SAS-733TQ Backplane Specifications in the back of this manual.

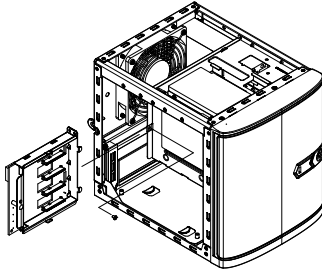


Figure 5-19. Removing the Backplane and Backplane Mounting Bracket

Replacing the Backplane

1. Power down the system and remove the power cord from the rear of the power supply as described in Section 5-2 and remove the chassis cover as described in Section 5-3.
2. Remove the screw securing the backplane mounting bracket to the chassis. Set the screw aside for later use.
3. Remove the backplane from the the chassis.
4. Remove the screws securing the backplane to the backplane mounting bracket and set these aside for later use.
5. Pull the backplane out of the chassis as illustrated above.
6. Lift the backplane off of the backplane mounting bracket.
7. Place a new BPN-SAS-733TQ backplane into the backplane mounting bracket and secure it with the screws previously set aside.
8. Insert the backplane and backplane mounting bracket into the chassis and secure the bracket with the screw previously set aside.
9. Replace the chassis cover, plug the power cord into the rear of the power supply and power up the system.

Notes

Appendix A

Cables, Screws, and Other Accessories

A-1 Overview

This appendix lists the supported cables for the SC721 chassis. It only includes the most commonly used components and configurations. For more compatible cables, refer to the manufacturer of the motherboard and our Web site at www.supermicro.com.

A-2 Cables Included with SC721 Chassis

SC721TQ-250B			
Part #	Type	Quantity	Description
CBL-0049L	Cable	1	Front panel cable, 16-pin to 16-pin, installed in the chassis
CBL-0263L	Cable	1	USB cable, installed in the chassis
CBL-00160L	Cable	1	US power cord, 18 AWG, 6', in the chassis accessory bag

A-3 Chassis Screws

The accessory box includes all the screws needed to set up your chassis. This section lists and describes the most commonly used screws. Your chassis may not require all of the parts listed.

M/B



Pan head
6-32 x 5 mm
[0.197]

HARD DRIVE



Flat head
6-32 x 5 mm
[0.197]

DVD-ROM, CD-ROM, and FLOPPY DRIVE



Pan head
6-32 x 5 mm
[0.197]



Flat head
6-32 x 5 mm
[0.197]



Round head
M3 x 5 mm
[0.197]



Round head
M2.6 x 5 mm
[0.197]

M/B STANDOFFS



M/B standoff
6-32 to 6-32

Appendix B

SC721 Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

The SC721 chassis includes a power supply rated at 80 Plus Bronze Level.

SC721TQ-250B	
250W	
MFR Part #	PWS-251-1H
AC Voltage	100 - 240V, 50 - 60Hz, 5 Amp
+5V	Max:14 Amp; Min:0.5 Amp
+12V	Max: 3 Amp; Min: 0 Amp
-12V	Max: 3 Amp; Min: 0 Amp
+3.3V	Max: 12 Amp Min: 0.3Amp
5VSB	Max: 2.5 Amp Min: 0 Amp



**Bronze Level
80 PLUS® Certified
Power Supplies**

Notes

Appendix C

BPN-SAS-733TQ Backplane Specifications

C-1 Safety Guidelines

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

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.

General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the BPN-SAS-733TQ backplane.
- Disconnect the power cable before installing or removing any cable from the BPN-SAS-733TQ backplane.
- Make sure that the BPN-SAS-733TQ backplane is securely and properly installed on the motherboard to prevent damage to the system due to power shortage.

C-2 An Important Note to the User

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've received may or may not look exactly the same as the graphics shown in this manual.

C-3 Introduction to the BPN-SAS-733TQ Backplane

The BPN-SAS-733TQ 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-733TQ Revision 3.00, the most current release available at the time of publication. Always refer to the Supermicro Web site at www.supermicro.com for the latest updates, compatible parts and supported configurations.

Overview

The BPN-SAS-733TQ backplane is a highly efficient, highly compatible and easy to use SES-2 backplane that offers the most advanced functionality provided by the Serial Attached/Serial Link industry in a slim package. With the built-in AMI MG 9071 chip, the BPN-SAS-733TQ Backplane allows the user to configure RAID 0, RAID 1 and RAID 5, maximizing data storage capability and data transferring reliability. Additionally, the BPN-SAS-733TQ supports SATA up to 6 Gbps and SAS up to 6Gbps with *SES-2 (SCSI Enclosure Services-2) capabilities, providing complete Serial Attached Services and Serial Link Solutions to the market. (*Refer to the section below.)

Backplane Features

The BPN-SAS-733TQ Backplane supports the following features when it is installed on a motherboard that has an onboard SAS controller:

1. Compatible with SATA drives
2. Supports SAS drives with a transfer rate of 6Gbps
3. Supports I²C Interface to communicate with SAS/SATA HBAs.
4. Minimizes the need for cables and connectors, uncluttering server space, and providing a trouble-free installation environment for the user
5. Supports SES-2 (SCSI Enclosure Services-2) protocol, providing the following features:

- Drive activity and drive failure indication for each drive slot.
- Overheat/drive failure alarm via a buzzer* installed on the backplane.
- A built in overheat/drive failure LED Indicator built in
- Temperature monitoring via a two wire (I²C) temperature sensor in the MG 9071 chip

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

The buzzer alarm is triggered by the following conditions:

- Hard drive failure
- Fan failure
- System temperature over 45° Celsius.

C-4 Jumper Settings and Pin Definitions

Front Jumper/Connector Locations

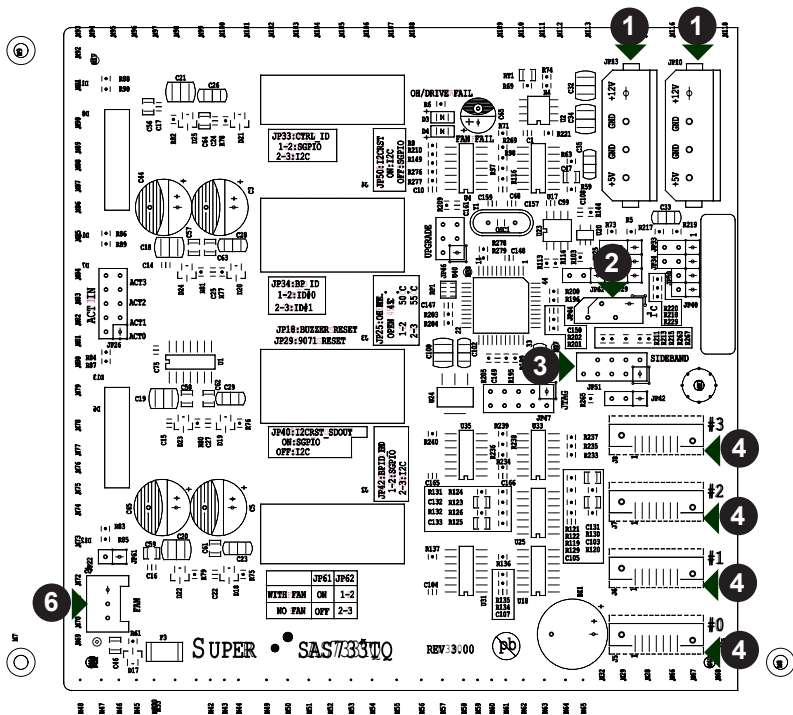


Figure C-1: BPN-SAS-733TQ Front View

Front Connectors

1. JP10/JP13: Backplane main power connectors
2. JP44: I²C connector
3. JP51: Sideband header
4. SAS 0-3 Connectors: SAS#0 (J5), SAS#1 (J6), SAS#2 (J7), SAS#3 (J8),
5. JP26: Activity LED header
6. JP22: Fan header

C-5 Front Connector Pin Definitions

Backplane Main Power Connectors (JP10, JP13) Pin Definitions

Sideband Header - JP51

You must use the 4-pin power connectors JP10 and JP13 to provide adequate power to the backplane. See the table on the right for pin definitions.

Backplane Main Power 4-Pin Connectors (JP10, JP13)

Pin Number Definition

1	+12V
2 and 3	Ground
4	+5V

1. Activity LED Header - JP26 Pin Definitions

The sideband header is designated JP51. For SAS-II to work properly, connect an 8-pin sideband cable to JP51 as shown on the right. .

Backplane Addressing { SB5	2	1	SB6 } Controller ID
Reset { SB4	4	3	SB2 } GND
GND { SB3	6	5	SB1 } SDA
Backplane ID { SB7	8	7	SB0 } SCL
No Connection	10	9	No Connection

Sideband Pin Definitions (JP51)

2. 3-pin Fan Header - JP22 Pin Definitions

The activity LED header JP26 transmits signals to indicate the activity status of each SAS slot. For the activity LED header to work properly, connect a 4-pin LED cable to Pin 1 to Pin 4 of JP26 as shown on the right. See the table on page C-6 for pin definitions.

Act In#0 {	1	6	SB6 } Controller ID
Reset { SB4	2	7	SB2 } GND
GND { SB3	3	8	SB1 } SDA
Backplane ID { SB7	4	9	SB0 } SCL
No Connection	5	X	No Connection

Note 1: "NC" = No connection

Note 2: Connect a 4-pin LED cable to Pin1 - Pin4 of JP26 only.

SAS Activity LED (JP26)

3. Front Overheat/Drive Failure LED Indicators - D3/D4

The 3-pin fan header is designated JP22. To prevent overheating, connect a 3-pin fan cable to JP22. See the table for pin definitions.

Note:

The fan header uses DC power. Default: Fan disabled.

Pin Number	Definition
1	Ground (Black)
2	+12V (Red)
3	Tachometer

Caution: Fan headers are DC Powered

Fan Header Pin Definitions

4. Front Panel Jumper Settings and Pin Definitions

Front LED	State	Specification
D3	On	Overheat, drive failure or fan failure
D4	On	Fan failure only

5. Fan Enable/Disable

Jumper	Description	Definition
JP18	Open (Default)	Normal
	Closed	Buzzer reset
JP26	Open (Default)	Act #0 - 3 In
JP29	Open (Default)	Normal
	Closed	MG9071 reset
JP33	Pins 1-2	I ² C controller ID: SGPIO
	Pins 2-3 (Default)	I ² C controller ID I ² C
JP34	Pins 1-2 (Default)	I ² C backplane ID: ID#0
	Pins 2-3	I ² C backplane ID: ID#1
JP40	Closed	I ² C reset: SGPIO
	Open (Default)	I ² C reset I ² C
JP42	Pins 1-2	I ² C backplane ID: SGPIO
	Pins 2-3 (Default)	I ² C backplane ID: I ² C
JP50	Open	I ² C reset SGPIO
	Short (Default)	I ² C reset I ² C (On)

Fan	JP61	JP62
Fan Enabled	On	Pins 1-2
Fan Disabled	Off	Pins 2-3

C-6 Rear Connectors and LED Indicators

Rear connector and LED locations

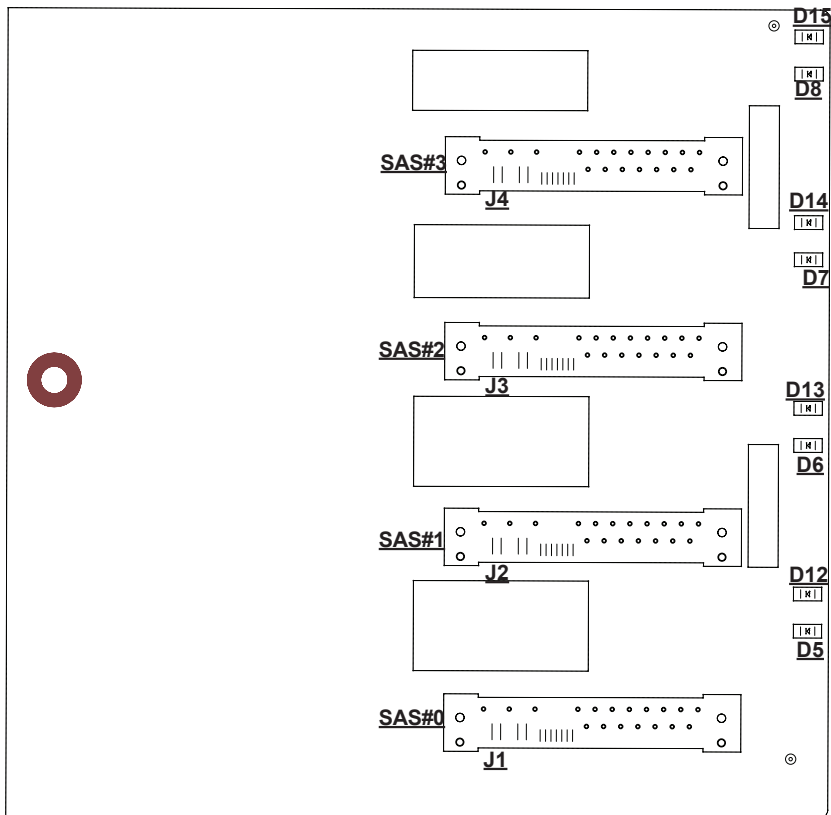


Figure C-2: Rear View

Rear Connectors

Rear Connector	Specification
J1 (Rear)	SAS#0 HDD (Connected to HDD)
J2 (Rear)	SAS#1 HDD (Connected to HDD)
J3 (Rear)	SAS#2 HDD (Connected to HDD)
J4 (Rear)	SAS#3 HDD (Connected to HDD)

Rear Connectors and LED Indicators

Rear LED Indicators	Specification
D12 (Rear)	SAS#0 Activity LED
D13 (Rear)	SAS#1 Activity LED
D14 (Rear)	SAS#2 Activity LED
D15 (Rear)	SAS#3 Activity LED
D5 (Rear)	SAS#0 Fail LED
D6 (Rear)	SAS#1 Fail LED
D7 (Rear)	SAS#2 Fail LED
D8 (Rear)	SAS#3 Fail LED

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.