SUPERMICRO®

SC523 Chassis Series

SC523L-520B   SC523L-505B
                  SC523L-410B

USER'S MANUAL

1.0b

Preface

This manual is written for professional system integrators and PC technicians. It provides information for the installation and use of the SC523 2U chassis. Installation and maintenance should be performed by experienced technicians only.

Supermicro's SC523 chassis features easy-access front I/O ports and a depth of only 14.5" for space-limited applications. The chassis design optimizes every aspect of interior space without compromising superior cooling. It is also equipped with a 410, 500 or 520 Watt, high-efficiency power supply for superb power savings.

This document lists the compatible parts available when this document was published. Always refer to the our website for updates on supported parts and configurations.

Manual Organization

Chapter 1 Introduction

The first chapter provides a description of the main components included with this chassis and describes the primary features of the SC523 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 the 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 Maintenance

Follow the procedures given in this chapter when setting up or maintaining 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: Power Supply Specifications

This section lists power supply specifications. Refer to our website for the latest information.

Notes

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Appendix A SC523 Power Supply Specifications

Chapter 1

Introduction

1-1 Overview

Supermicro's SC523 2U chassis features a unique and highly optimized design. The chassis is equipped with a high-efficiency power supply. High-performance fans provide ample optimized cooling. Two fixed 3.5" drives offer maximum storage capacity in a 2U short-depth form factor.

1-2 Shipping List

Part Numbers

Please visit the Supermicro website for the latest shipping lists and part numbers for your particular chassis model at www.supermicro.com.

SC523L-410B Chassis			
Model	**HDD**	**I/O Slots**	**Power Supply**
SC523L-410B	2 x 3.5" Fixed Hard Drive	7 x LP	410W

SC523L-505B Chassis			
Model	**HDD**	**I/O Slots**	**Power Supply**
SC523L-505B	2 x 3.5" Fixed Hard Drive	7 x LP	500W

SC523L-520B Chassis			
Model	**HDD**	**I/O Slots**	**Power Supply**
SC523L-520B	2 x 3.5" Fixed Hard Drive	7 x LP	520W

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
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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

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.

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。

此警告符号代表危险。

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.

תקנון הצהרות אזהרה

הצהרות הבאות הן אזהרות על פי תקני התעשייה, על מנת להזהיר את המשתמש מפני חבלה פיזית אפשרית. במידה ויש שאלות או התקלות 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!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

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600VDC，20A。

警告
此產品的短路（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-A 20 ,V 250

هذا المنتج يعتمد على معدات الحماية من الدوائرالقصيرة 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 electrische installatie. Controleer of het beveiligde aparaat 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、シャーシー内部にアクセス
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 chassis pour
installer ou enlever des composants de systéme.

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 للهيكل لتثبيت أو إزالة مكونات الجهاز

경고!

시스템에 부품들을 장착하거나 제거하기 위해서는 섀시 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 لتركيب 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 لتركيبها في مناطق محظورة .
يمكن الوصول إلى منطقة محظورة فقط من خلال استخدام أداة خاصة،
قفل ومفتاح أو أي وسيلة أخرى للأمان

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
电池更换不当会有爆炸危险。请只使用同类电池或制造商推荐的功能相当的电池更
换原有电池。请按制造商的说明处理废旧电池。

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

此裝置連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 trom 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 !
ליחדה 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 أوالطاقة الموجودة على اللوحة عندما يكون النظام يعمل كن حذرا عند خدمة هذا الجهاز

경고!

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

Waarschuwing

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

Comply with Local and National Electrical Codes

Warning!

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

地方および国の電気規格に準拠
機器の取り付けはその地方および国の電気規格に準拠する必要があります。

警告
设备安装必须符合本地与本国电气法规。

警告
設備安裝必須符合本地與本國電氣法規。

Warnung

Die Installation der Geräte muss den Sicherheitsstandards entsprechen.

¡Advertencia!

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

Attention

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

תיאום חוקי החשמל הארצי

אזהרה !
התקנת הציוד חייבת להיות תואמת לחוקי החשמל המקומיים והארציים.

تركيب المعدات الكهربائية يجب أن يمتثل 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 ell montaje del ventilador del chasis. Mandtenga 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 retirerez 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!

섀시로부터 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，例如閉環或鏟型接線片。 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
需要使用絞线连接时，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!

Cuando 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 תבאות 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

عندما يكون مطلوبا الأسلاك الذين تقطعت بهم السبل، واستخدام الأسلاك إنهاء المواقفة عليها، مثل حلقة مغلقة أو الأشياء بأسماء الحقيقية النوع عونلا الأسلاك بسنانملا مجحلا نوكي تاءاهنإلا نوكي تاءاهنإلا هذلد يغبنيو. ةبولطملا تاورعلا عم وجبي بجك حبك لك نم لزعلا وموصل.

주의!

꼬인 배선이 요구 될 때에는 폐회로나 돌출부가 위로 튀어 나온 Spade형태의 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.

DC Power Disconnection

Warning!

Before performing any of the following procedures, ensure that power is removed from the DC circuit.

警告

次の手順を開始する前に、DC回路から電源が切断されていることを確認してください。

警告

進行以下任一操作程序前，請確保直流電路已斷電。

警告

请在进行以下任一操作程序前，确保直流电路的电源已经断开。

Warnung

Vor Ausführung der folgenden Vorgänge ist sicherzustellen, daß die Gleichstromschaltung keinen Strom erhält.

¡Advertencia!

Antes de proceder con los siguientes pasos, comprobar que la alimentación del circuito de corriente continua (CC) esté cortada (OFF).

Attention

Avant de pratiquer l'une quelconque des procédures ci-dessous, vérifier que le circuit en courant continu n'est plus sous tension.

אזהרה!

לפני ביצוע אחת הפעולות הבאת, ודא כי אספקת החחשמל למעגל הזרם הישר DC הינה מנותקת.

تحذير

عندما يكون الأسلاك المطلوبة، استخدم الأسلاك التي تنقطع بهم السبل، واستخدام الأسلاك إنهاء عند مع نوع الحقيقية بأسمائها الأشياء أو حلق مغلق مثل على، المواقف يجب للأسلاك المناسب الحجم نوكي إنهاء لهذا ينبغي ومقبولة. العزل والموصل كل من لكل حبك.

다음 절차들을 수행하기 전에, 전원이 DC회로로부터 제거되었는지를 확인해 주십시오.

Waarshuwing

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 gefählicher 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. Veillez 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 !

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

تحذير

قد يكون الجهد الخطرة أو الطاقة تكون موجودة على محطات الطاقة العاصمة. استبدال غطاء دائما عندما المحطات ليست في الخدمة. ومما لا شك فيه الموصلات غير معزول لا يمكن الوصول إليها عندما الغطاء في مكانه.

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.

Waarshuwing

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 chassis includes one slim DVD dummy cover, and two 3.5" fixed hard drives. For the latest shipping lists, visit our website at: www.supermicro.com.

Fans

The SC523 chassis accepts two system fans. System fans for the SC523 chassis are powered from the serverboard. These fans are 80 x 38 mm and are powered by 4-pin connectors.

Mounting Rails

The SC523 can be placed in a rack for secure storage and use. To set up your rack, follow the step-by-step instructions included in this manual.

Power Supply

Each SC523 chassis model includes a high-efficiency power supply rated at 410, 500 or 520 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, which funnel air directly to where it is needed. Always use the air shroud included with your chassis.

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: http://www.supermicro.com. Click the Where to Buy link

Chapter 4

System Interface

4-1 Overview

This chasis includes LEDs on the control panel and drive carriers that indicate the activity and health of specific components.

4-2 Control Panel Buttons

There are two buttons located on the front of the chassis: a reset button and a power on/off button.
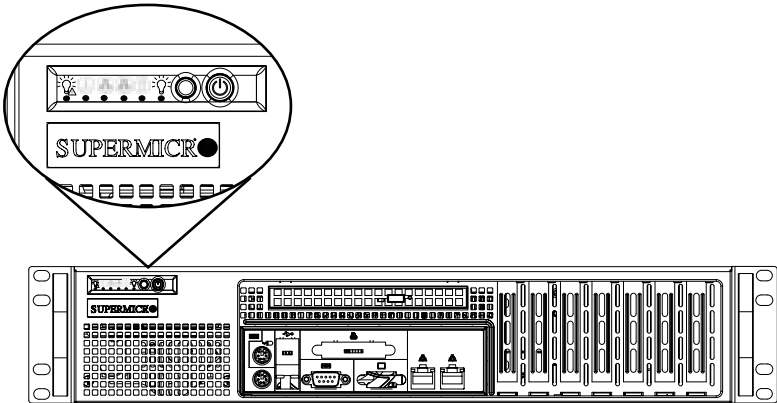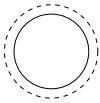

Figure 4-1. Front Panel Buttons

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

4-3   Control Panel LEDs

The control panel located on the front of the SC523 chassis has six LEDs. These LEDs provide you with critical information related to different parts of the system. This section explains what each LED indicates when illuminated and any corrective action you may need to take.

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

Overheat/Fan Fail
When Flashing: This LED indicates a fan failure.
When Continuously On (not flashing). This LED indicates an overheat condition caused by cables obstructing the airflow in the system or the ambient room temperature being too warm. To correct this condition, do the following:

Check the Following

1. Check the routing of the cables and move any cables that restrict the airflow.

2. Confirm that all fans are operating normally.

3. Verify that the heatsinks are installed properly.

4. If the chassis cover is not aligned correctly, the airflow may be disrupted. This leads to overheating. Confirm that the chassis cover is placed correctly.

NIC2: Indicates network activity on GLAN2 when flashing.

NIC1: Indicates network activity on GLAN1 when flashing.

HDD: Indicates IDE channel activity, SAS/SATA drive, and/or DVD-ROM drive activity when flashing.

Power: The main power switch is used to activate or deactivate power to the server system. Turning off the system power with this button removes the main power, but standby power remains on. Therefore, you must unplug system before servicing.

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. The only tools needed to install components and perform maintenance is a Phillips screwdriver and under certain circumstances, a hex wrench.

5-2   Removing Power From the System

Before performing any setup or maintenance on the chassis, use the following procedure to ensure that power has been disconnected 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.

3. Disconnect the cord from the power strip or wall outlet.

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 Systems and the warnings/precautions listed in the setup instructions.
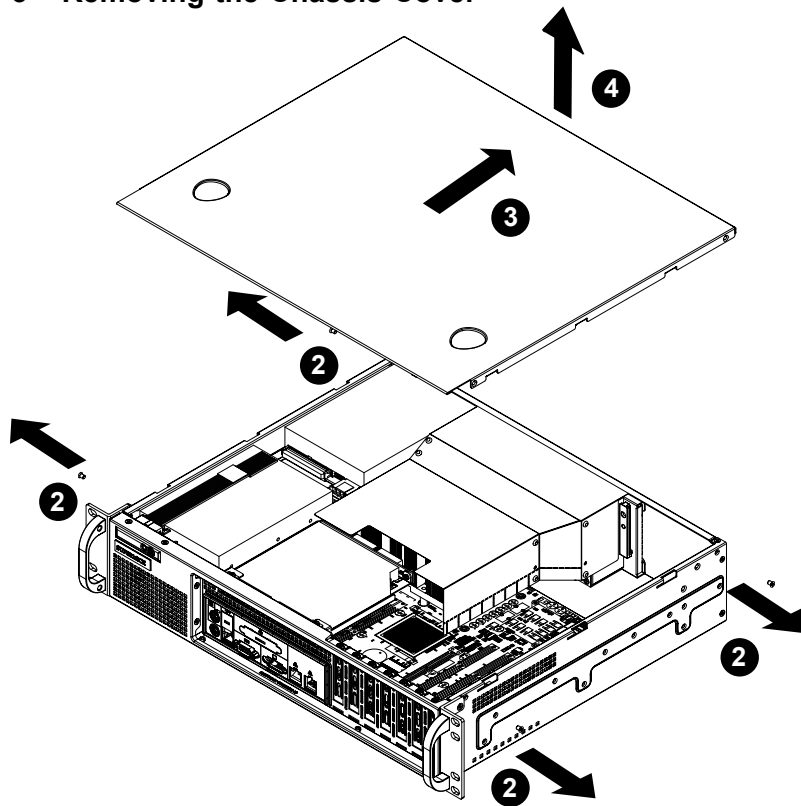
5-3   Removing the Chassis Cover

Figure 5-1. Removing the Chassis Cover

Removing the Chassis Cover

1. Power down the system and remove the power cord as described in Section 5-2.

2. Remove the four screws holding the chassis cover in place.

3. Slide the cover toward the rear of the chassis

4. Lift the cover up and off the chassis.

⚠ **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.

5-4   Removing and Installing the Air Shroud

Figure 5-2. Removing the Air Shroud

Air shrouds concentrate airflow to maximize fan efficiency. The SC523 chassis air shroud does not require screws to set it up. The air shroud must be removed before a motherboard may be installed.

Removing the Air Shroud

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Carefully lift the air shroud straight up and out of the chassis.

Installing the Air Shroud

1. Each air shroud includes perforated tabs that can be removed to accommodate motherboard components. To ensure maximum cooling, remove only the tabs that are necessary to ensure a proper fit of the air shroud.

2. Place air shroud in the chassis. The air shroud covers the fans at the rear of the chassis.
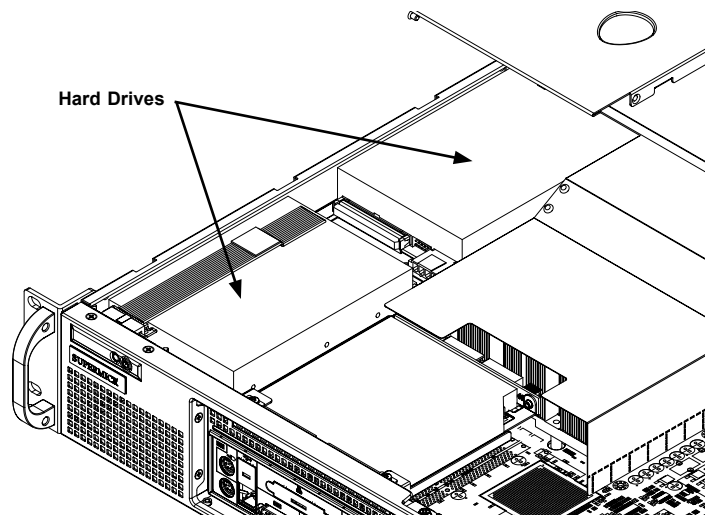
5-5 Removing and Installing Hard Drives

Figure 5-3. Locating the Fixed Hard Drives within the Chassis

Removing the Hard Drives and Hard Drive Trays from the Chassis

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Disconnect the wiring to the hard drive.

3. Locate the hard drive that needs to be replaced within the chassis.

4. Remove the mounting screws holding the hard drive tray into the chassis, and set them aside for later use.

Figure 5-4. Removing the Hard Drive Tray from the Chassis

5. Carefully lift the hard drive tray and hard drive from the chassis.

Warning: Except for short periods of time (while swapping hard drives), do not operate the server with the hard drives empty. The hard drive tray must have a hard drive or dummy drive installed.
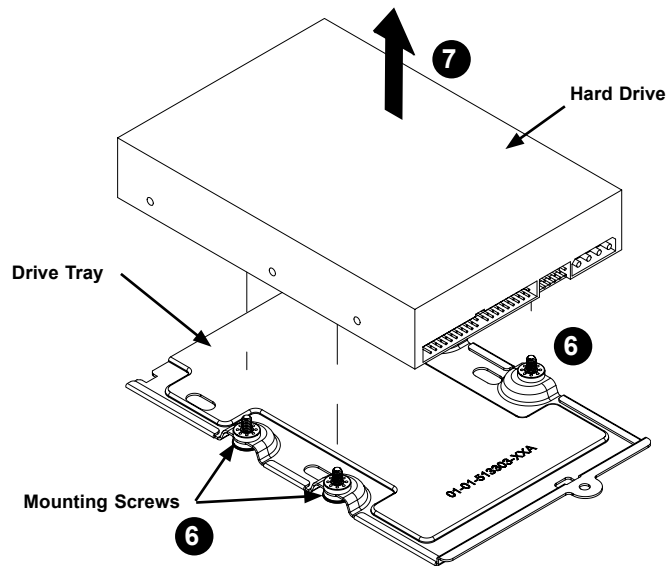
5-6   Removing and Installing the DVD or CD-ROM

Prior to installing the motherboard, the DVD or CD-ROM must be removed, then reinstalled after the motherboard has been installed in the chassis.
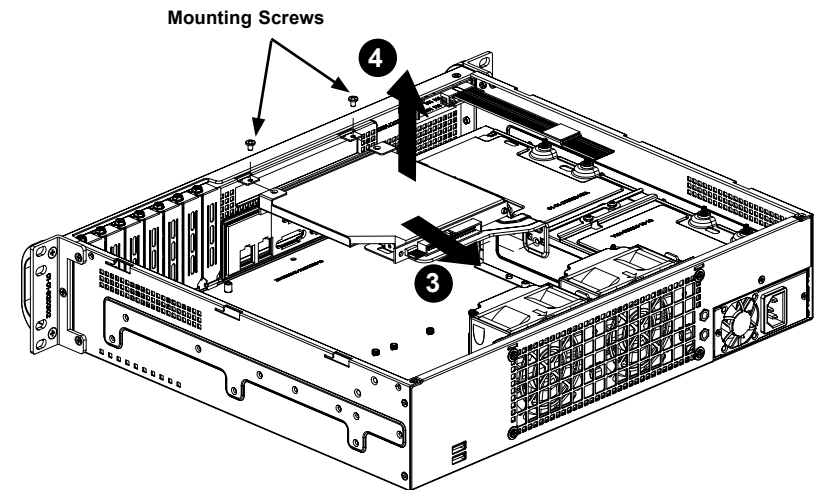

Figure 5-5. Removing the Hard Drive from the Drive Tray

6. Remove the mounting screws holding the hard drive into the hard drive tray and set them aside for later use.

7. Carefully remove the hard drive from the hard drive tray.

Installing a Hard Drive into the Hard Drive Tray

1. Install a new hard drive into the hard drive tray with the printed circuit board side facing down so that the mounting holes align with those in the carrier.

2. Using the screws which were set aside earlier, secure the hard drive into the hard drive tray by tightening all four screws.

3. Carefully lower the hard drive tray and hard drive into the chassis.

4. Secure the hard drive tray to the chassis using the screws set aside earlier.

5. Reconnect the wiring to the hard drive.

⚠️ **Warning: Only enterprise level hard drives are recommended for use in Supermicro chassis.**

Figure 5-6. Removing the DVD or CD-ROM

Removing the DVD or CD-ROM Drive

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Locate and remove the screws holding the DVD-ROM in place, setting aside the screws for later use.

3. If necessary, disconnect any cables to the DVD-ROM and comport tray.

4. Slide the DVD-ROM and comport tray toward the rear of the chassis.

5. Lift the DVD-ROM and comport tray free from the chassis.

Installing the DVD or CD-ROM Drive

1. Carefully slide the DVD or CD-ROM and comport tray into the opening in the front of the chassis.

2. Secure the drive with the screws previously set aside and reattach the wiring.

5-7   Installing the Motherboard

This section describes how to install the motherboard to the chassis. To do this, you are required to remove the air shroud, hard drive, hard drive tray and DVD or CD-ROM drive prior to installing the motherboard. See the previous sections for instructions on how to remove these components.
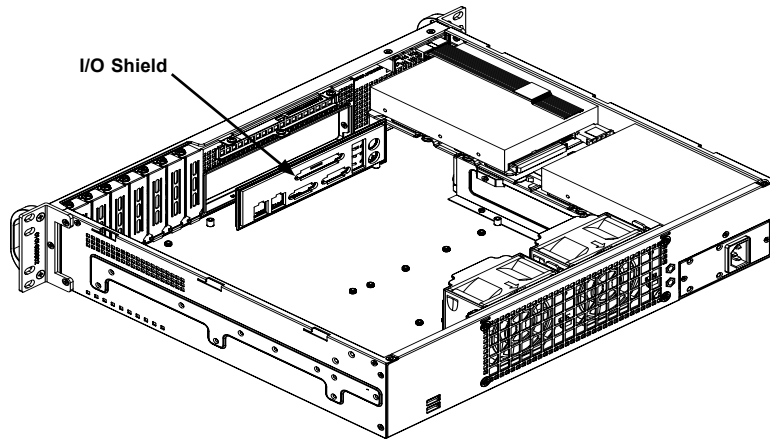

Figure 5-7. Installing the I/O Shield

Installing the I/O Shield

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

Installing the I/O Shield:

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Review the documentation that came with your motherboard. Become familiar with component placement, requirements, and precautions.

3. Make sure the I/O shield matches the motherboard ports. You may need to punch out the printer port.

4. With the illustrations facing the outside of the chassis, place the shield into the space provided.

5. Once installed, the motherboard will hold the I/O shield in place.

Permanent and Optional Standoffs

Standoffs prevent short circuits by securing space between the motherboard and the chassis surface. The SC523 chassis includes permanent standoffs in locations used by most motherboards.

Some motherboards require additional screws for certain CPUs, heatsinks, and other components. Optional standoffs are included for these motherboards. To use an optional standoff, screw the standoff into the chassis in the use the optional standoff in the same manner as the permanent standoffs.
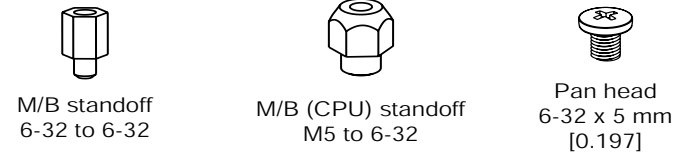

M/B standoff
6-32 to 6-32

M/B (CPU) standoff
M5 to 6-32

Pan head
6-32 x 5 mm
[0.197]

Figure 5-8. Motherboard Standoffs and Motherboard Pan Head Screw

Motherboard Installation

Once the air shroud, hard disk drive tray, DVD or CD-ROM have been removed and any additional standoffs have been placed, the motherboard may be installed in the chassis.

Installing the Motherboard

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Review the documentation that came with your motherboard. Become familiar with component placement, requirements, precautions, and cable connections.

3. Disconnect the chassis from the power source and 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. In addition, make sure the motherboard aligns with the I/O shield.
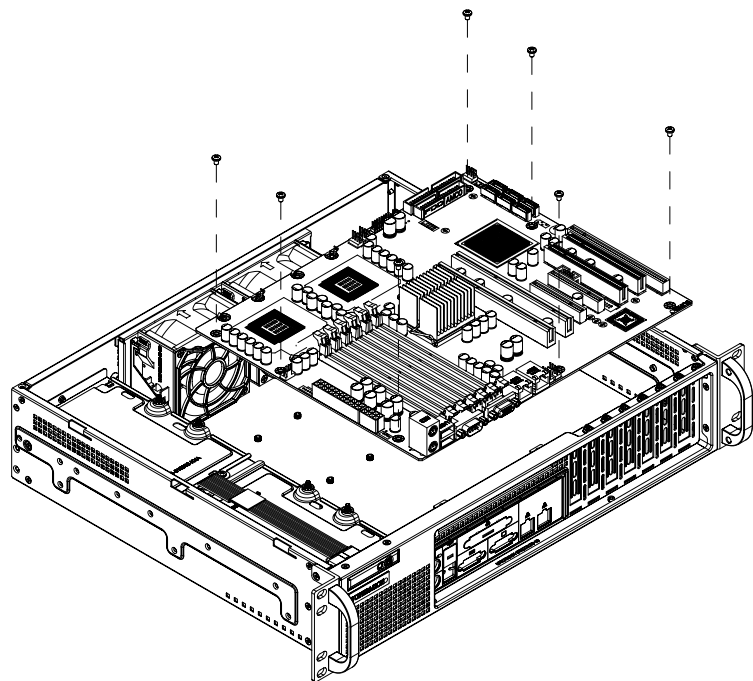
Figure 5-9. Installing the Motherboard

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 as described in the motherboard documentation.

8. Connect the cables between the motherboard, backplane, chassis, front panel, and power supply, as needed. Also, the fans may be temporarily removed to allow access to the backplane ports.
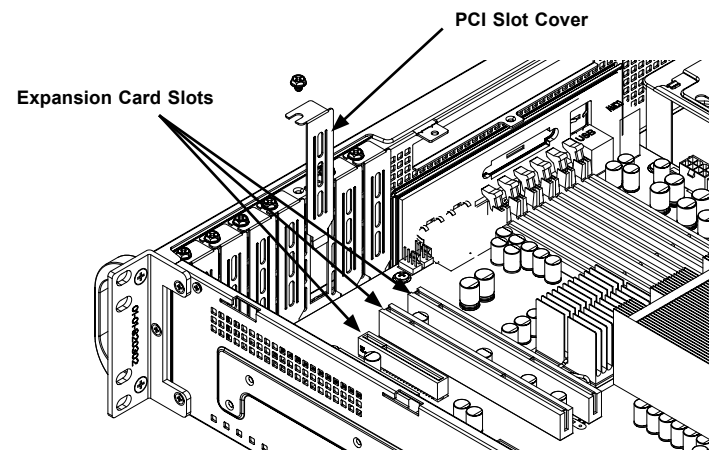
PCI Slot Setup

Figure 5-10. Remove the Expansion Card Slot Screw

SC523 chassis include seven PCI slots for expansion cards.

Installing Expansion Cards:

1. Confirm that each add on card you are installing includes a standard L-bracket.

2. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

3. Remove the screw holding the PCI slot cover in place for each low profile expansion card slot you want to use. Keep this screw for later use.
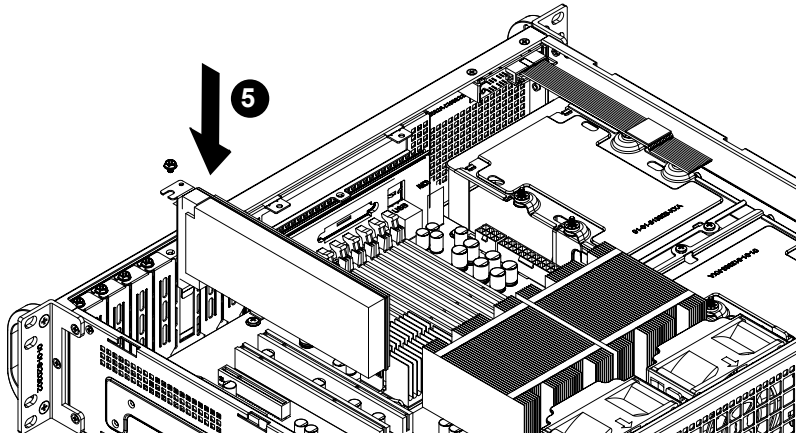
4. Slide the PCI slot cover up and out of the slot.

Figure 5-11. Securing the Expansion Card within the Chassis

5. Simultaneously slide the bracket of the expansion card into the PCI slot, while plugging the expansion card into the motherboard.

6. Secure each expansion card to the chassis using the card's bracket and the screw previously removed.

5-8   Checking the Airflow in the System

Proper airflow allows the chassis to keep the server components cooled and prevent damage. Use the following steps to check the airflow after setting up the system or servicing.

Checking the Server's Airflow

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Make sure that no cables or foreign objects obstruct airflow through the chassis. Pull all excess cabling out of the airflow path or use shorter cables. For the SC523 chassis, it is recommended that cables run beside the power supply as much as possible.

3. Make sure there are no objects to obstruct airflow in and out of the server.

4. Do not operate the server without hard drives or dummy drives in the hard drive trays.

5. Use recommended server parts only.

The control panel LEDs inform you of system status. See the System Interface section of this manual for details on the LEDs and the control panel buttons.

Once the air shroud has been properly installed, do the following:

1. Install the DVD-ROM drive unit and connect the DVD-ROM drive to the motherboard.

2. Install the hard drive tray.

3. Securely close the chassis cover.

Installation Complete

This completes the setup and configuration of the system. The system fans and power supply are pre-installed in the chassis. In the unlikely event that you need to replace the system fans or power supply, proceed to the following sections. If the chassis will be installed into a rack, proceed to the next chapter for rack installation instructions.

5-9   System Fans

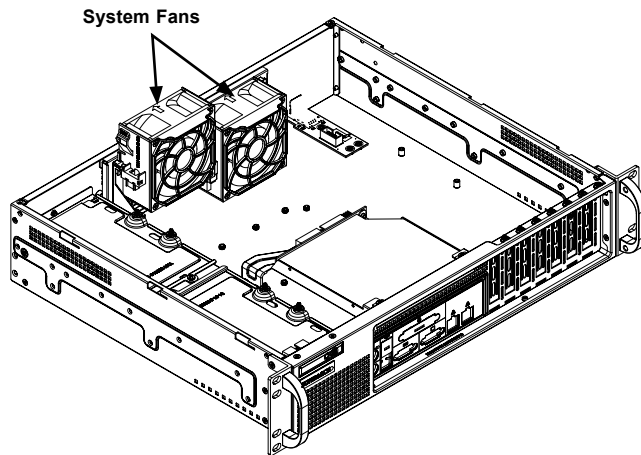The SC523 chassis includes two system fans for cooling and air circulation.

Figure 5-12. Placing the System Fans

Replacing a System Fan

1. Carefully remove the chassis cover while the system is running. The chassis cover should only remain off for brief periods of time while performaning system maintenance.

2. Determine which fan not operating properly.

3. Take note of the direction that the airflow indicator arrow on the top of the fan is pointing.

4. Press the release tabs on each side of the fan and carefully lift it up and out of the chassis.

5. Replace the fan with a new one of the same model, ensuring that the airflow indicator arrow is pointing in the same direction as the fan being replaced.

6. Close the cover and secure it to the chassis.

5-10 Power Supply Replacement

The SC523 chassis has a 410, 500 or 520 Watt power supply. This power supply is auto-switching capable. This enables it to automatically sense and operate at a 100v to 240v input voltage. An amber light will be illuminated on the power supply when the power is off. An illuminated green light indicates that the power supply is operating.

Power Supply Replacement SC523L-520B or SC523L-410B

The SC523L-520B and SC523L-410B chassis models include one power supply. Replacement units can be ordered directly from Supermicro (see contact information in the Preface).

Removing the Power Supply

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Disconnect the power connectors from the motherboard.

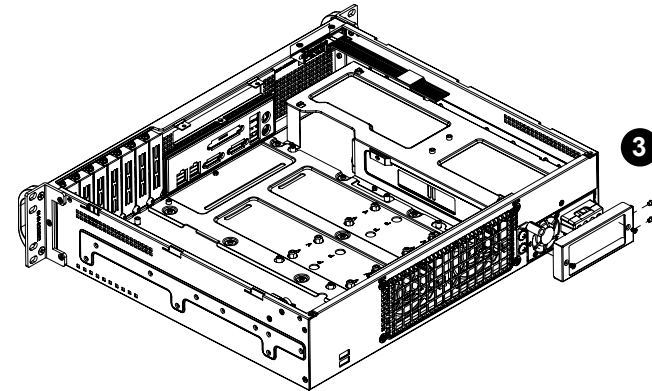3. Remove the screws from the power supply panel on the back of the chassis as illustrated.

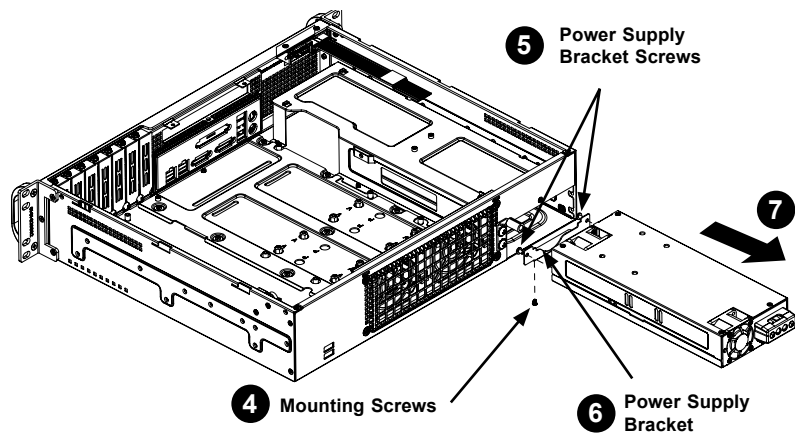

Figure 5-13. Removing the Power Supply Panel

Figure 5-14. Removing the Power Supply

4. Remove the mounting screws holding the power supply to the floor of the chassis and set them aside for later use.

5. Remove the screws holding the power supply bracket to the rear of the power supply and set them aside for later use.

6. Remove the power supply bracket.

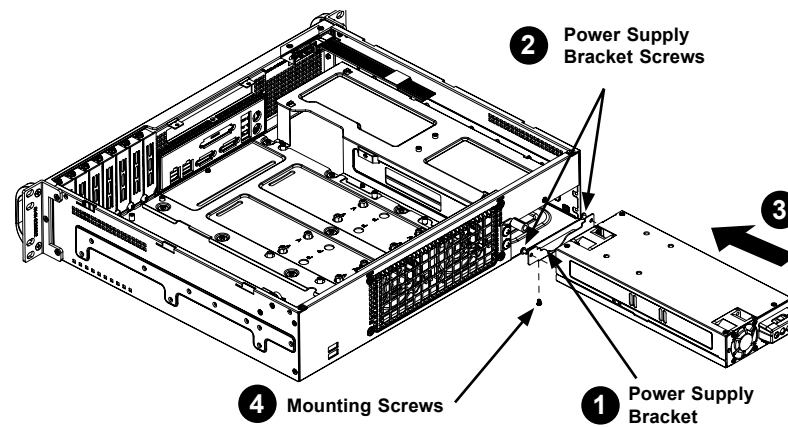7. Gently pull the power supply out of the chassis.

Figure 5-15. Removing the Power Supply

Installing the Power Supply

1. Place the power supply bracket on the rear of the power supply

2. Use the power supply bracket screws previously set aside to attach the power supply bracket to the rear of the power supply.

3. Gently push the new power supply module into the power bay until it clicks into the locked position.

4. Insert the mounting screws up through the bottom of the chassis and into the power supply.

5. Plug the AC power cord into the module and power-up the system.

Power Supply Replacement SC523L-505B

The SC523L-505B chassis model includes one power supply. Replacement units can be ordered directly from Supermicro (see contact information in the Preface).

Removing the Power Supply

1. Power down the system and remove the power cord as described in Section 5-2 and remove the cover as described in Section 5-3.

2. Disconnect the power connectors from the motherboard.

3. Remove the four screws securing the power supply panel to the chassis as illustrated.
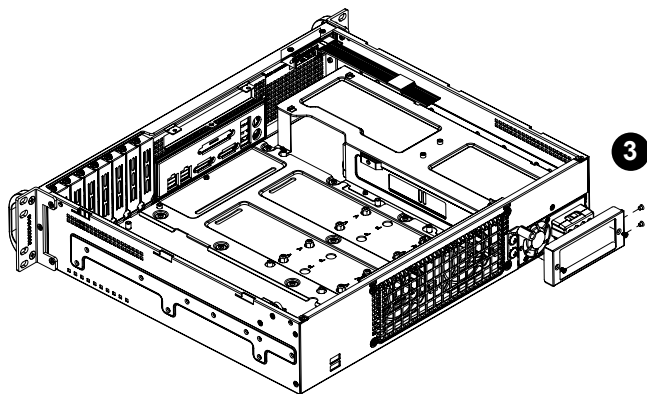

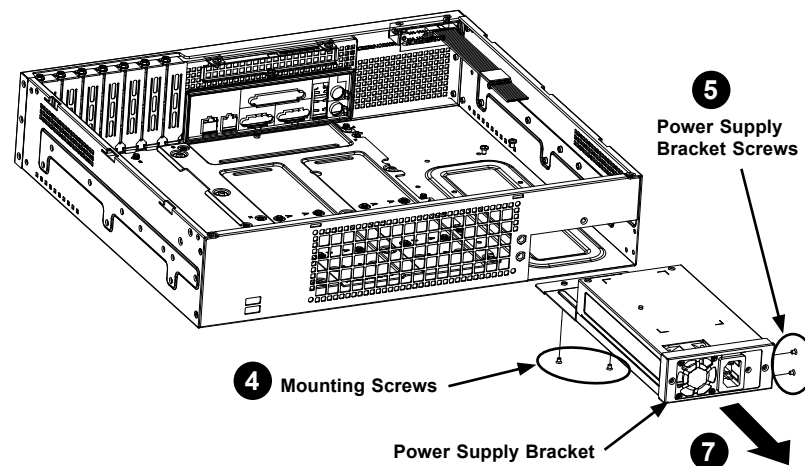**Figure 5-13. Removing the Power Supply Panel**

Figure 5-14. Removing the Power Supply

4. Remove the mounting screws holding the power supply to the floor of the chassis and set them aside for later use.

5. Remove the power supply bracket screws holding the power supply bracket to power supply and set them aside for later use.

6. Remove the power supply bracket from the power supply.

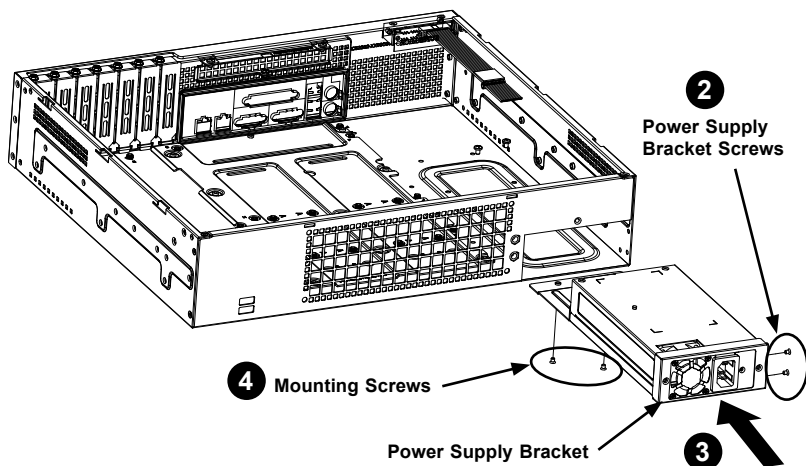7. Gently pull the power supply out of the chassis.

Figure 5-15. Removing the Power Supply

Installing the Power Supply

1. Place the power supply bracket on the rear of the power supply

2. Use the power supply bracket screws previously set aside to attach the power supply bracket to the rear of the power supply.

3. Gently push the new power supply module into the power bay until it clicks into the locked position.

4. Insert the mounting screws up through the bottom of the chassis and into the power supply.

5. Plug the AC power cord into the module and power-up the system.

Chapter 6

Rack Installation

6-1   Overview

This chapter provides instructions for mounting the SC523 chassis onto a rack.

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 you begin the installation procedure outlined in the sections that follow.

Choosing a Setup Location

- Leave enough clearance in front of the rack to enable you 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 for installation only in a Restricted Access Location (dedicated equipment rooms, service closets and the like).

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-swappable 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 temperature of the room. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (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.).

- 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.

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:

6-4 Rack Mounting Instructions

This section provides information on installing the SC523 chassis into a rack unit with the rails provided. 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 rails will fit a rack between 29" and 35.25" deep.

Identifying the Sections of the Rails

The chassis package includes two 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 rack rail that secures directly to the rack itself.

Rail Brackets

The chassis package includes four rail brackets and two chassis mounts. The rail brackets have long ovals used to adjust the length of the rails when mounting. The chassis mounts (both short) have one square hole.
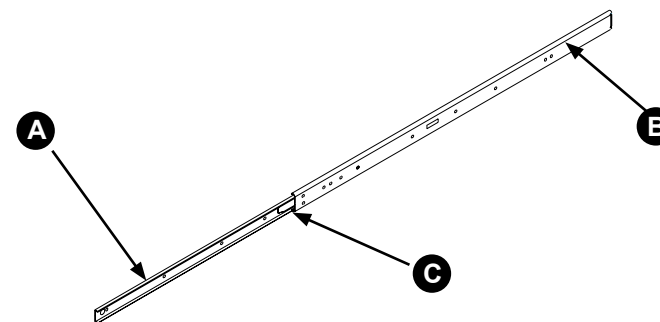
Figure 6-1. Inner and Outer Rails

Separating the Inner and Outer Rails

1. Pull the inner rail (A) from the outer rail (B) as far as possible.

2. Depress the locking tab (C) to pull the inner rail completely out and separate it from the outer rail.
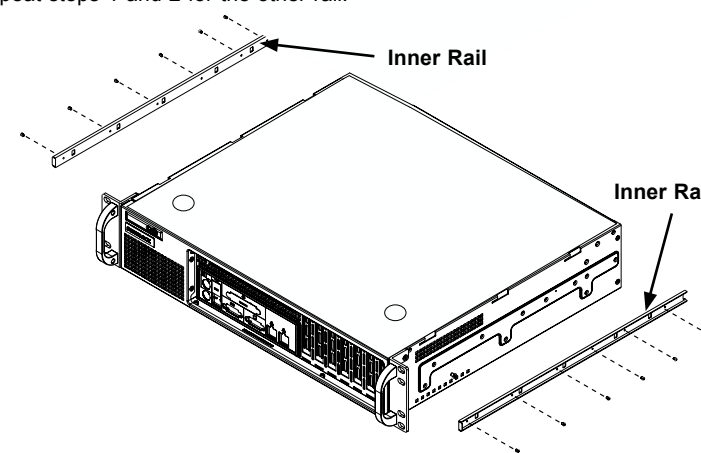
3. Repeat steps 1 and 2 for the other rail.

Figure 6-2. Rail Installation

Installing the Inner Rail

1. Align the inner rail with the side of the chassis.

2. Secure the inner rail to the chassis using six M5 flat head screws.

3. Repeat steps 1 and 2 for the remaining inner rail.

Warning: do not pick up the server by the front handles. They are designed to pull the system from a rack only.
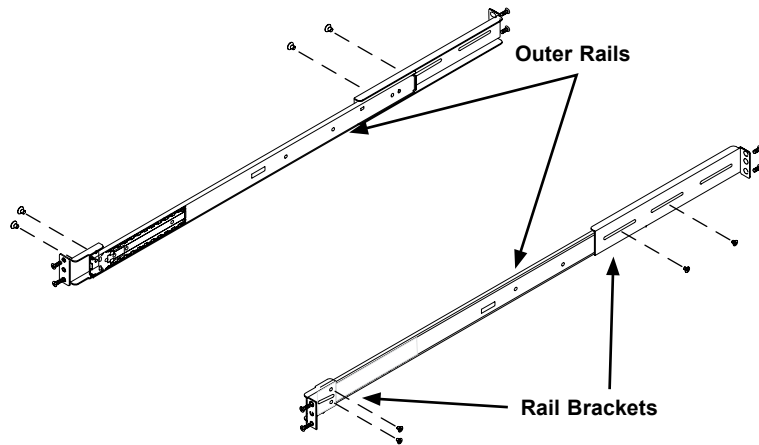
Figure 6-3. Rack Brackets

Installing the Outer Rails to the Rack

1. Confirm that the inner rails have been separated from the outer rails.

2. Locate the rail brackets in the accessories box. The chassis package includes four rail brackets and two chassis mounts. The rail brackets have long ovals used to adjust the position of the rails when mounting. The chassis mounts (both short) have one square hole.

3. Secure the short brackets to the front of the outer rails with two M4 screws.

4. Secure the long brackets to the outer rails using two M4 screws. Tighten the screws loosely so the bracket can slide back and forth.

5. Position the outer rail and brackets in the rack at the desired level.

6. Secure the front of the rail to the rack using two M5 rack screws.

7. Slide the rear bracket so that it snugly fits into the rack. Secure the rear bracket to the rack using two M5 screws.

8. Tighten the screws that secure the rear bracket to the rail.

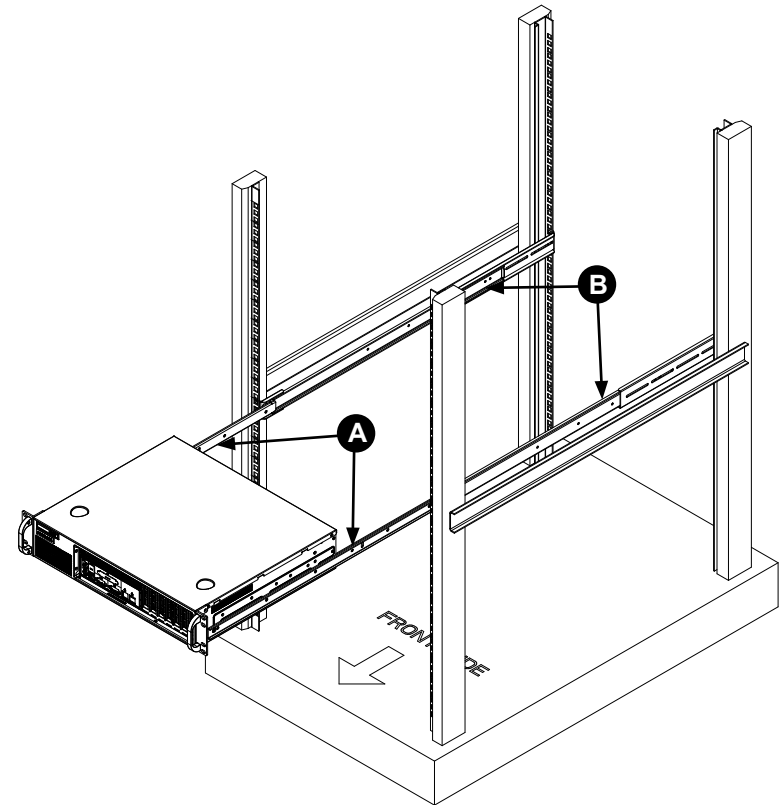9. Repeat these steps with the other chassis rail.

Figure 6-4. Inserting the Inner Rails into the Outer Rails

Installing the Chassis into a Rack

Chassis Installation

1. Confirm that the the inner rails (A) are attached to the chassis and that the outer rails (B) are installed on the rack

2. Align the inner rails with the front of the outer rails. Slide the inner rails into the outer rails, keeping the pressure even on both sides (you may have to depress the locking tabs when inserting).

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.

Figure 6-5. Mounting the Chassis onto the Rack

3. When the server has been pushed completely into the rack, you should hear the locking tabs "click" into the locked position.

4. (Optional) Insert and tightening the thumbscrews that hold the front of the server to the rack.

⚠️ 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.
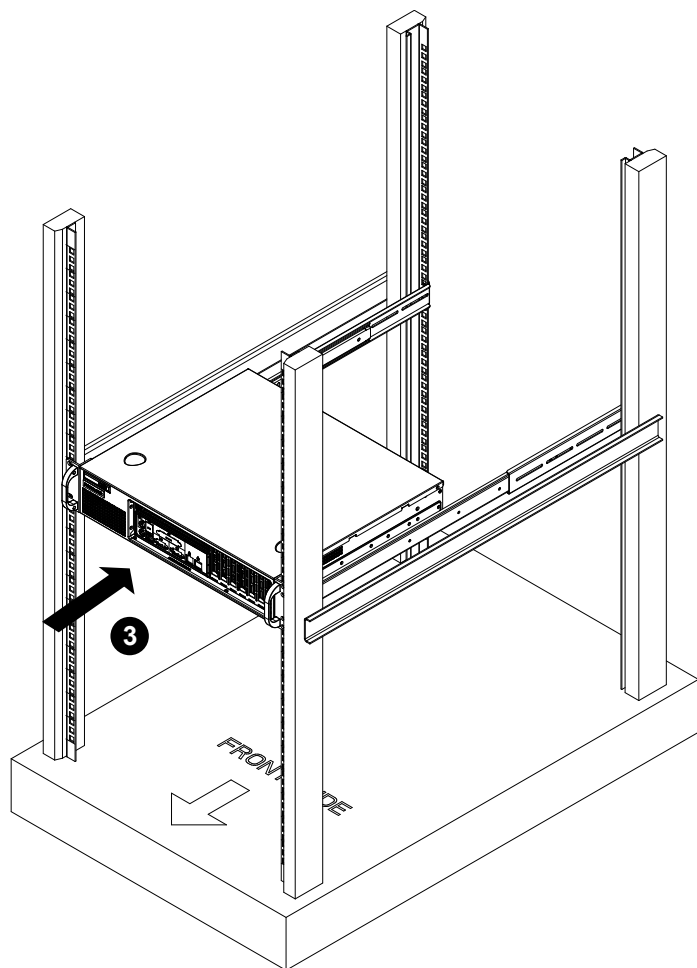
Figure 6-6. Mounting the Chassis onto an Open (Telco) Rack

Installing the Server into a Telco Rack

Installing the chassis into a Telco type rack

1. Use two L-brackets on either side of the chassis (four total). Determine how far the server will extend out the front of the rack. Larger chassis should be positioned to balance the weight between the front and back of the rack. If a bezel is included on your chassis, remove it.

2. Attach the two front brackets to each side of the chassis, and then add the two rear brackets, positioning them with just enough space to accommodate the width of the rack.

3. Complete the installation by sliding the chassis into the rack and tightening the brackets.

⚠️ 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.
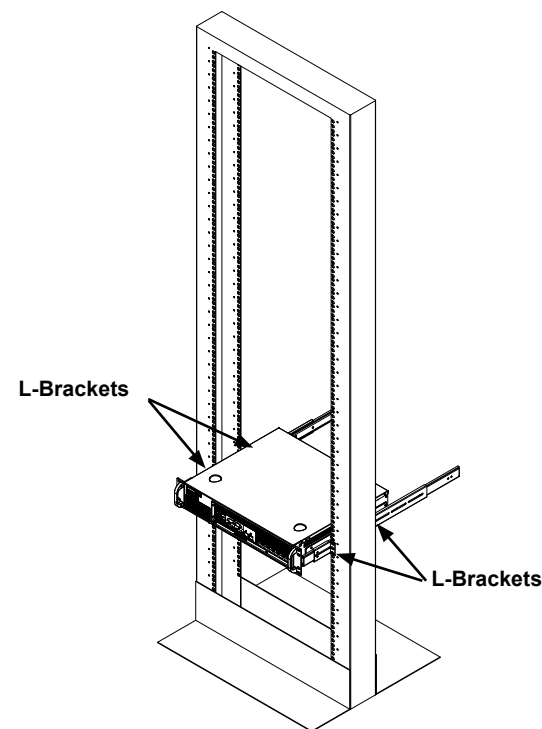
Notes

Appendix A

SC523 Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

SC523L-410B	
	410W
MFR Part #	PWS-0061
Rated DC Voltage	Voltage Range: -36 to -72V Nominal Voltage: -.48V Max Input Current: 18A @ -48V 9.5 - 4.5 Amp
DC Output	5V + 3.3V ≤ 160W
+5	35.0 Amp
+5V standby	3.0 Amp
+12V	32.0 Amp
-12V	0.5 Amp
+3.3V	20.0 Amp

SC523L-505B	
	500W
MFR Part #	PWS-505P-1H
AC Input	100-240V, 50-60Hz, 6.6A max
+5	15 Amp
+5V standby	3 Amp
+12V	41 Amp
-12V	0.2 Amp
+3.3V	12 Amp

SC523L-520B	
	520W
MFR Part #	PWS-521-1H
AC Voltage	100 to 240V 50-60 Hz 7-3 Amp
+5	20 Amp
+5V standby	3 Amp
+12V	39 Amp
-12V	0.5 Amp
+3.3V	16 Amp