

SUPERO®

SC510 Chassis Series



SC510-200B

SC510L-200B

SC510T-200B

SC510-203B

SC510T-203B

USER'S MANUAL

1.0c

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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 SC510 chassis. Installation and maintenance should be performed by experienced technicians only.

Supermicro's mini-sized SC510 1U chassis features a depth of only 11.3" with an advanced airflow and thermal design for client nodes, firewall applications, mail servers, Web servers and other server applications. The SC510 supports a wide range of single processor based Micro ATX 9.6" x 9.6" motherboards. The SC510T features dual 2.5" hot-swappable hard drive bays which permit easy upgrades and maintenance. The SC510 is a perfect solution for home and office servers, with system noise levels at a low 30 dB during normal operation.

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

Manual Organization

Chapter 1 Introduction

The first chapter provides an overview of the main components and features of the SC510 chassis. This chapter also includes contact information.

Chapter 2 Warning Statements for AC Systems

This section lists warnings, precautions, and system safety. It is recommended that you thoroughly familiarize yourself with this chassis safety precautions.

Chapter 3 Chassis Components

Refer here for general information on the chassis components including the fans, airflow shields, and other equipment.

Chapter 4 System Interface

This chapter provides information on the system interface. Refer here for the meanings of the LED indicators and the appropriate responses that you may need to take.

Chapter 5 Chassis Setup and Installation

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

Chapter 6 Rack Installation

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

Appendix A Chassis Hardware

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Appendix B SC510 Power Supply Specifications

Chapter 1

Introduction

1-1 Overview

Supermicro's SC510 chassis features a unique and highly-optimized design. The chassis is equipped with a high-efficiency 80%+ low-noise power supply.

Note: A complete list of safety warnings is provided on the Supermicro web site at http://www.supermicro.com/about/policies/safety_information.cfm.

1-2 Shipping List

Part Numbers

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

SC510 Chassis			
Model	HDD	I/O Slots	Power Supply
SC510-200B	1x fixed 3.5" hard drive or up to 4x fixed 2.5" hard drives	Up to 1x FH (optional)	200W (High-efficiency)
SC510-203B	1x fixed 3.5" hard drive or up to four fixed 2.5" hard drives	Up to 1x FH (optional)	200W (Gold Level)
SC510L-200B	1x fixed 3.5" hard drive or up to 4x fixed 2.5" hard drives	Up to 1x FH (optional)	200W
SC510T-200B	2x 2.5" hard drives	1x LP	200W (high-efficiency)
SC510T-203B	2x 2.5" hard drives	1x LP	200W (Gold Level)

Legend: FH: Full-height LP: Low-profile

1-3 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.

1-4 Contacting Supermicro

Headquarters

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

Tel: +1 (408) 503-8000

Fax: +1 (408) 503-8008

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

Web Site: 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)

Web Site: 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

Web Site: www.supermicro.com.tw

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.

חשובות אזהרות

סמל הזהרה זה מציין סכנת פגיעה פיזית. קיימת סכנה לבריאותכם. לפני שימוש בכל ציוד, שקלו את סכנות החשמל והאזהרות הסטנדרטיות למניעת תאונות. הידעו את הסיכונים והאזהרות המובאים בפרטים בפרק זה של המדריך. לפני שימוש בכל ציוד, שקלו את סכנות החשמל והאזהרות הסטנדרטיות למניעת תאונות. הידעו את הסיכונים והאזהרות המובאים בפרטים בפרק זה של המדריך.

**تحذير! هذا الرمز يعني خطر اصابة في حالة يمكن ان تتسبب في اصابة جسدية .
 قبل ان تعمل على أي معدات يمكن طي حطم بالمخاطر الناجمة عن الدوائر
 للكهربائية
 وكن على دراية بالعملات الوقائية لمنع وقوع أي حوادث
 استخدم رقم البيان المتصوص في نهاية كل تحذير للتحوير 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 VEILIGHEIDSLINSTRUCTIES

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.

⚠️ **התראה: קראו את ההוראות להתקנה לפני שתחברו את המערכת למקור האנרגיה.**

⚠️ قبل تركيب التركيب قبل توصيل النظام إلى مصدر الطاقة

시스템을 전원에 연결하기 전에 설치 안내를 읽어주시십시오.

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.

תוצר זה מסתמך על המהדורה המוגדרת במבנה למניעת קיצוץ חשמלי. יש לוודא כי המבנה והגובה של התוצר המוגדר הוא לא יותר מ-250V, 20A.

هذا المنتج يعتمد على معدات الحماية من الدوائر القصيرة التي تم تثبيتها في المبنى
تأكد من أن تعيير للجهاز الوتقي ليس أكثر من: 250V, 20A

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.

電源切断の警告

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

システムの電源はすべてのソースから切断され、電源コードは電源モジュールから取り外す必要があります。

警告

在你打开机箱并安装或移除内部器件前，必须将系统完全断电，并移除电源线。

警告

在您打開機殼安裝或移除內部元件前，必須將系統完全斷電，並移除電源線。

Warnung

Das System muss von allen Quellen der Energie und vom Netzanschlusskabel getrennt sein, das von den Spg.Versorgungsteilmodulen entfernt wird, bevor es auf den Chassisinnenraum zurückgreift, um Systemsbestandteile anzubringen oder zu entfernen.

¡Advertencia!

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

Attention

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

אזהרה!
יש לנתק את המערכת מכל מקורות החשמל ויש להסיר את כבל החשמל קודם לכן לפני גישה לחדק הפנימי של המערכת לצורך התקנת או הסרת רכיבים.

يجب فصل النظام من جميع مصادر الطاقة وإزالة سلك الكهرباء من وحدة امداد الطاقة قبل التوصل إلى المناطق الداخلية ليترك تثبيت 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.

⚠️
⚠️

⚠️

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.

אזהרה על גישה סגורה

אזהרה!

יש להימנע מההיגיון באזורים שיש בהם הגבלת גישה. הגישה מותרת בלבד
בלי אמצעים בלתי נשערים, (למשל מנעול).

تم تخصيص هذه الوحدة لتثبيتها في مناطق مغلقة .
يمكن الوصول إلى منطقة مغلقة فقط من خلال استخدام أداة خاصة
مثل مفتاح أو أي وسيلة أخرى للأمان.

경고!

이 장치는 접근이 제한된 구역에 설치하도록 되어 있습니다. 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.

⚠️⚠️⚠️⚠️
קיימת סכנת פיצוץ של הסוללה במקרה החלפה בדרך לא תקינה. יש להחליף את הסוללה בלבד במסגרת הנחיות היצרן.
סילוק הסוללות המנוהטות יש לבצע לפי הנחיות היצרן.

هناك خطر من انفجار في حالة استبدال البطارية بطريقة غير صحيحة. استبدل البطارية فقط بنفس النوع أو ما يخلها كما أوصت به الشركة المصنعة. التخلص من البطاريات المستهلكة وفقاً لتعليمات الشركة المصنعة.

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 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 מקשר אחד

אזהרה!
ליחידה יש יותר מקשר אחד של חשמל. יש להסיר את כל החיבורים על קשר לחיבור
הוא דו-קשר.

قد يكون لهذا الجهاز عدة اتصالات يوحدت بعدد 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

システム稼働中は危険な電圧または電力が、バックプレーン上にかかっています。

修理する際にはご注意ください。

警告

当系统正在进行时，背板上有很危险的电压或能量，进行维修时务必小心。

警告

當系統正在進行時，背板上危險的電壓或能量，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.

תנאי התקנה

⚠

יש להקפיד על כללי התקנה המקומיים והלאומיים של המדינה בה מתקין את המכשיר.

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 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 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 והקני והחשמל המוני

אזהרה!

התקנת המוצר חייבת להיות תואמת לרשימת המוצרים והתקנות המקומיים והמדיניים.

تركيب المعدات الكهربائية يجب أن يمثل التوافق 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.

פירוק והסרה

אזהרה!

פירוק סופי של סופר זה חייב להיות באמצעות לוחיות הוראות והסרת

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.

⚠️
כאשר תסיר את יחיד הוורידור מהכסוי, ייתכן שהמאוורר ימשיך לרוטור. שמרו על אצבעותיכם, מוורידורים וכלי עבודה אחרים מרחוק מן הפתוחים של יחיד הוורידור.
من الممكن أن المراوح لا تزال تدور عند إزالة كتلة المروحة من الهيكل يجب إبقاء الأصابع ومككات البراغي وغيرها من الأشياء بعيداً 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

安装此产品时,请使用本身提供的或指定的连接线,电源线和电源适配器.使用其它线材或适配器可能会引起故障或火灾.除了Supermicro所指定的产品,电气用品和材料安全法律规定禁止使用未经UL或CSA认证的线材。(线材上会显示UL/CSA符号)。

警告

安装此產品時,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.

התקנת כבלים ומתאמים AC

אזהרה!

במהלך התקנת המוצר, יש להשתמש בכבלים או מתאמים המסומנים על ידי UL או CSA. שימוש בכבלים או מתאמים אחרים עלול לגרום לתפקוד לא תקין של המוצר. שימוש בכבלים או מתאמים אחרים עלול לגרום לתפקוד לא תקין של המוצר. שימוש בכבלים או מתאמים אחרים עלול לגרום לתפקוד לא תקין של המוצר. שימוש בכבלים או מתאמים אחרים עלול לגרום לתפקוד לא תקין של המוצר.

עוד תרכיב ליהיזר ייבב אסתחלם קיילת תווטול סולקילת ללכר יפיר
 ומחולת תייל תטרד
 ללי - אן אסתחלם אי קיילת ומחולת אכרי יתמייב פי חלות טלל או חריק
 תמ תוקיר הו ללע מע תטתג
 האיהזו ללכר יפיר ומולד קלון ללסלמט יטטר אסתחלם קיילת CSA או UL
 מסעו מ קיל
 ללי איהזו ללכר יפיר אכרי אכרי תטתג ללסונו מ קיל Supermicro
 (ללי תטל טלמט CSA/UL)

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

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.

3-2 Components

For the latest shipping lists, visit our Web site at: <http://www.supermicro.com>.

Drives

The SC510 or SC510L chassis supports one fixed 3.5" hard drive or up to four fixed 2.5" hard drives.

The SC510T chassis supports two hot-swappable 2.5" hard drives.

Power Supply

Each SC510 chassis includes a low-noise power supply with thermal control fan, rated at 200 Watts. Two models feature 80+ Gold level power supplies.

Motherboards

The maximum motherboard size is 9.6" x 9.6". Single processor is supported using Intel® Core 2 Duo, Xeon 3000 Series (up to 65W), Intel® Celeron® 400 series, Intel® Atom™ 200/300 series.

Fans

This chassis supports two system cooling fans in the SC510(L) models and three system cooling fans in the SC510T. System fans are powered from the serverboard using 3-pin or 4-pin connectors.

Air Shroud

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

Expansion Card

The chassis supports one expansion card, depending on the hard drive configuration. See the table in Chapter 1 for details.

Control Panel

The front control panel includes a power switch, reset button, and five LED status indicators.

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/Resellers can be found at: <http://www.supermicro.com>. Click the Where to Buy link.

Chapter 4

System Interface

4-1 Overview

The chassis includes:

- A control panel on the front that houses power buttons and status monitoring lights
- Status lights on externally accessible hard drives (SC510T models only)
- Status lights for the power supply visible from the back of the chassis

These elements are described in this chapter with possible responses.

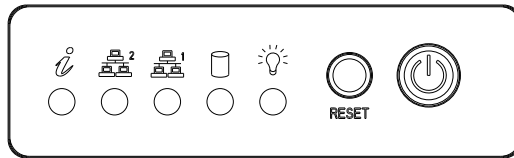
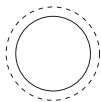


Figure 4-1. Control Panel

4-2 Control Panel Buttons

The chassis includes two push-buttons that control power to the system.



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



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

4-3 Control Panel LEDs

There are five LEDs that provide status information about the system.



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

Informational LED	
Status	Description
Continuously on and 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	Remote UID is on. Use this function to identify the server from a remote location.



NIC2: Indicates network activity on GLAN2 when flashing.



NIC1: Indicates network activity on GLAN1 when flashing.



HDD: Indicates IDE channel activity on the hard drive when flashing.



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

Overheating

There are several possible responses if the system overheats.

Overheat Temperature Setting

Some backplanes allow the overheat temperature to be set at 45, 50, or 55 by changing a jumper setting. For more information, consult the backplane user manual at www.supermicro.com. (Click Support, then the Manuals link.)

Responses

If the server overheats:

1. Use the LEDs to determine the nature of the overheating condition.
2. Confirm that the chassis covers are 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.

4-4 Drive Carrier LEDs

The SC510T series chassis includes externally accessible SAS/SATA drives. Each drive carrier displays two status LEDs on the front of the carrier.

- **Green:** When illuminated, this LED indicates drive activity. It blinks on and off when that particular drive is being accessed. This function is controlled by the backplane.
- **Red:** When illuminated, this LED indicates a drive failure. You should be notified by your system management software.

4-5 Power Supply LEDs

On the rear of the power supply module, an LED displays the status.

- **Solid Green:** When illuminated, indicates that the power supply is on.
- **Solid Amber:** When illuminated, indicates the power supply is plugged in and turned off, or the system is off but in an abnormal state.
- **Blinking Amber:** When blinking, this system power supply temperature has reached 63C. The system will automatically power-down when the power supply temperature reaches 70C and restarts when the power supply temperature goes below 60C.

Chapter 5

Chassis Setup and Maintenance

5-1 Overview

This chapter covers the steps required to install components and perform maintenance on the chassis. The only tool you will need to install components and perform maintenance is a Phillips screwdriver.

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

5-2 Removing Power from the System

Before performing most 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.
3. Disconnect the cord from the power strip or wall outlet.

5-3 Removing the Chassis Cover

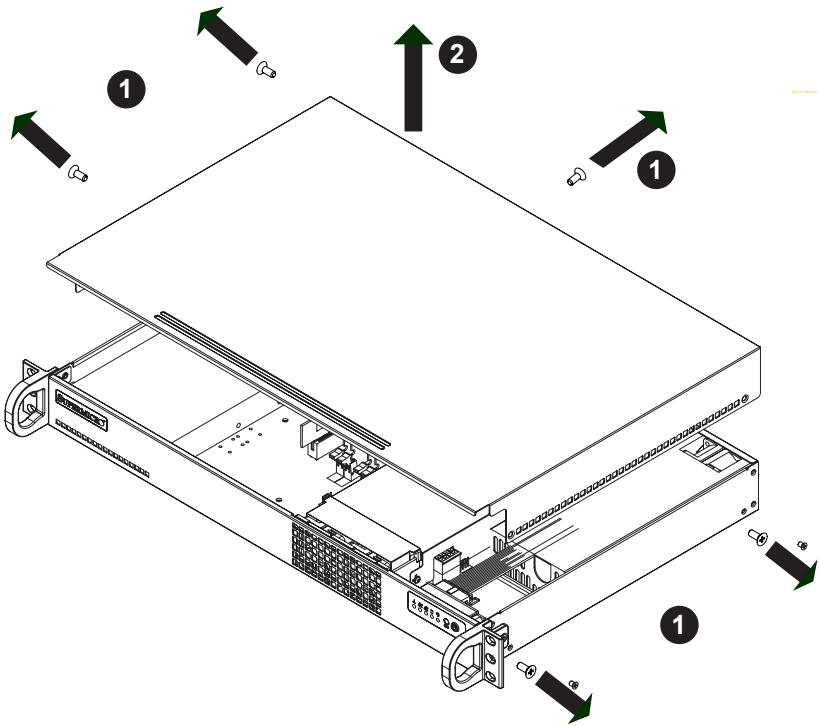


Figure 5-1. Removing the Chassis Cover

1. Power down the system and remove the power cord from the rear of the power supply as described in Section 5-2.
2. Remove the five screws that hold the chassis cover in place. There are two screws on each side of the chassis, and one screw on the back.
3. Once the screws have been removed, lift the cover upward to remove it from 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 Installing the Hard Drives

Installing 3.5" Fixed Hard Drives

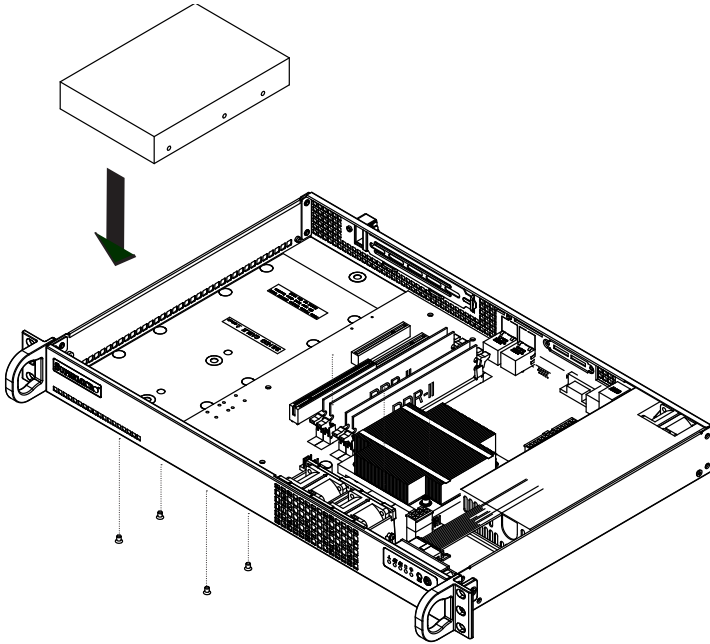


Figure 5-2. Installing the 3.5" Hard Drive

Installing a Fixed 3.5" Hard Drive

The 3.5" hard drive screws directly into the chassis.

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.
2. Place the 3.5" hard drive in the chassis as illustrated above.
3. Secure the hard drive to the floor of the chassis using the four screws provided.

Installing 2.5" Fixed Hard Drives

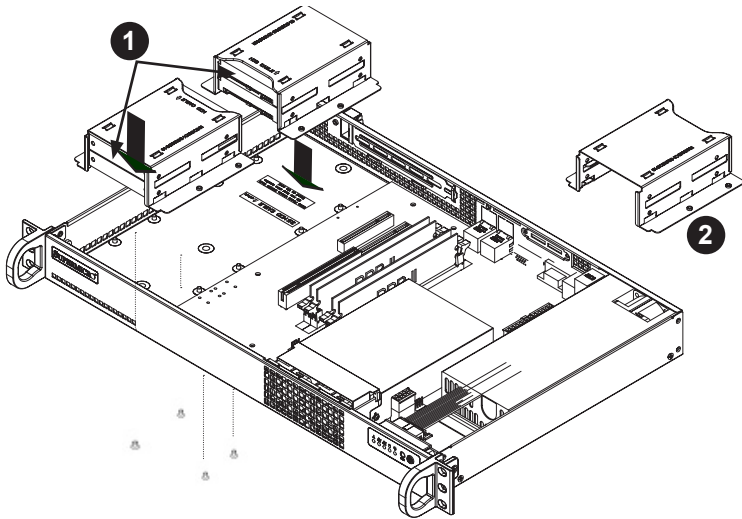


Figure 5-3. Installing the 2.5" Hard Drives

Installing a Fixed 2.5" Hard Drive

The 2.5" hard drives (1) must be installed in their brackets (2) before they are screwed into the chassis.

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.
2. Insert 2.5" hard drives into the hard drive brackets.
3. Secure the 2.5" hard drives to the brackets with the screws provided.
4. Place the hard drive bracket in the chassis as illustrated above.
5. Secure the hard drive bracket to the floor of the chassis using the four screws provided.

5-5 Installing the Motherboard

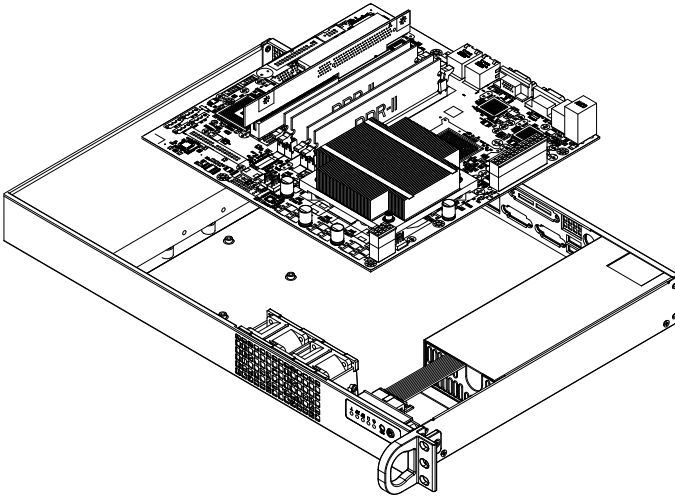


Figure 5-4. Chassis Standoffs

Permanent and Optional Standoffs

Standoffs prevent short circuits by securing space between the motherboard and the chassis surface. The SC510 chassis includes permanent standoffs in locations used by most motherboards. These standoffs accept the rounded Phillips head screws included in the SC510 accessories packaging.

When installing the motherboard, use the permanent and optional standoffs included in the chassis accessory box. To use an optional standoff, you must place the hexagonal screw through the bottom of the chassis and secure the screw with the hexagon nut (rounded side up).

Installing the Motherboard

1. Review the documentation that came with your motherboard. Become familiar with component placement, requirements, precautions, and cable connections.
2. Open the chassis cover.
3. Compare the mounting holes in the chassis to those in the motherboard. Add or remove standoffs as needed.
 - a. Place a hexagonal standoff screw through the bottom the chassis.
 - b. Secure the screw with the hexagon nut (rounded side up).
4. Lay the motherboard on the chassis aligning the permanent and optional standoffs
5. Secure the motherboard to the chassis using the rounded, Phillips head screws.
6. Secure the CPU(s), heatsinks, and other components to the motherboard as described in the motherboard documentation.
7. Connect the cables between the motherboard, backplane, chassis, front panel, and power supply, as needed. Also, the fans may be temporarily removed to allow access to the backplane ports.

5-6 Expansion Card Setup

The chassis includes an I/O slot for an optional expansion card, depending on the hard drive configuration (see Chapter 1). A riser card is required. For further information on expansion cards and risers cards, refer to www.supernmicro.com

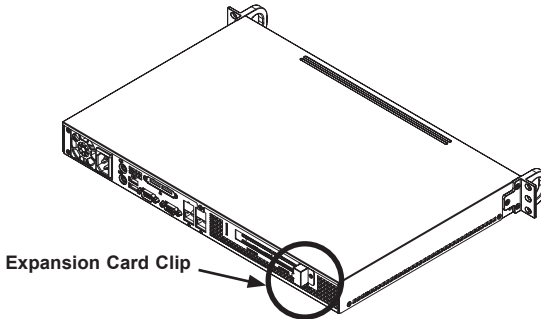


Figure 5-5. Locate the Expansion Card Clip

1. Locate the expansion card clip on the back of the chassis
2. Remove the screws holding the expansion card clip and the dummy bracket which covers the openings in the back of the chassis.
3. Remove the expansion card clip and the dummy plate from the chassis.
4. Outside of the chassis, put the expansion card and the riser card together by inserting the expansion card into the riser card.

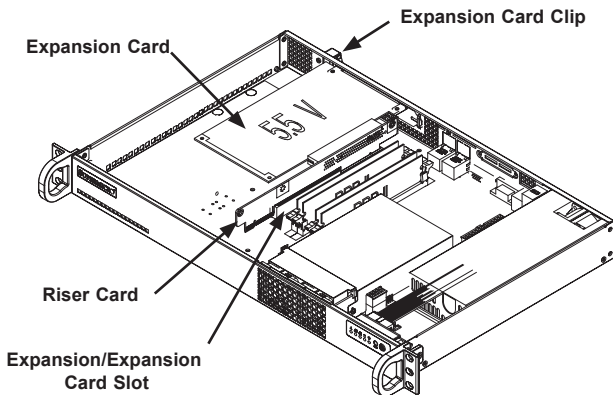


Figure 5-6. Install the Expansion Card and Riser Card

5. Insert the assembled expansion card and riser card into the expansion slot inside the chassis, carefully aligning the plate of the expansion card with the openings in the back of the chassis.
6. Replace the expansion card clip and screw it onto the chassis to hold the expansion card in place.

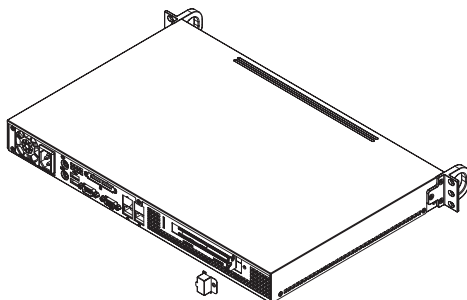


Figure 5-7. Replace the Expansion Card Clip

5-7 Installing a Heatsink

If you elect to buy a heatsink to help cool the processor, use this procedure.

1. Power down the system as described in Section 5-2 and remove the cover.
2. Disconnect the wiring to the motherboard.
3. Remove the screws securing the motherboard to the chassis and lift it up and out of the chassis.
4. Align the holes of the heatsink, and use the mounting screws to attach the heatsink to the motherboard.
5. Reinstall the motherboard using the directions in section 5-4.

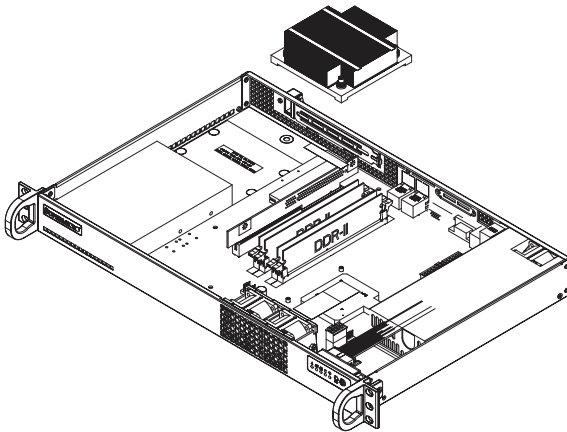


Figure 5-8. Installing the Heatsink

5-8 Installing the Air Shroud

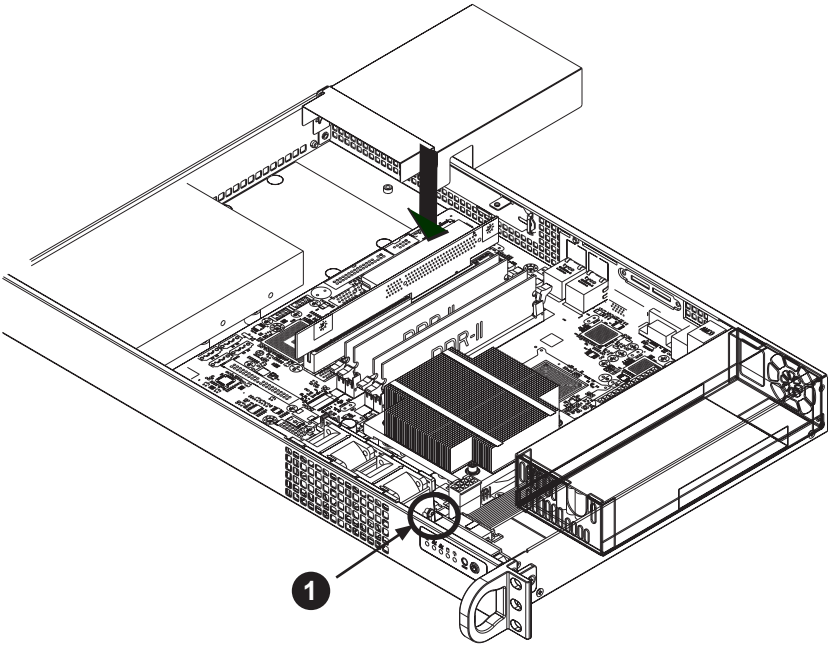


Figure 5-9. Air Shroud for SC510 Chassis

Air shrouds concentrate airflow to maximize fan efficiency. The SC510 chassis air shroud does not require screws to install.

Place the air shroud in the chassis. The air shroud fits behind the fan closest to the power supply.

Use the clip on the fan housing to hold the air shroud in place. (See item 1 above)

Checking the Server Airflow

- Make sure there are no objects to obstruct airflow in and out of the server.
- Use only recommended server parts.
- Make sure no wires or foreign objects obstruct airflow through the chassis. Pull all excess cabling out of the airflow path, or use shorter cables.
- The control panel LEDs inform you of system status. See “Chapter 3: System Interface” for details on the LEDs and the control panel buttons.

In most cases, the chassis power supply and fan are pre-installed. If you need to install fans, continue to the *System Fans* section of this manual.

5-9 System Fans

Installing Fans for the SC510-200B/203B or SC510L-200B

Two heavy-duty fans within a single fan housing provide cooling for the chassis. These fans circulate air through the chassis as a means of lowering the chassis internal temperature.

1. If necessary, open the chassis while the power is running to determine which fan has failed (Never run the server for an extended period of time with the chassis open).
2. Power down the system, remove the power cord from the rear of the power supply and remove the chassis cover as described on page 5-2.
3. Remove the failed fan's power cord from the serverboard.
4. Remove the fan housing from the chassis by removing the two screws which attach the housing to the chassis. These screws are located in the mounting thru holes on either side of the fan housing. (See figure 5-10). Set these screws aside for later use.
5. Disconnect the fan wiring from the connectors and carefully lift the fan housing out of the chassis.

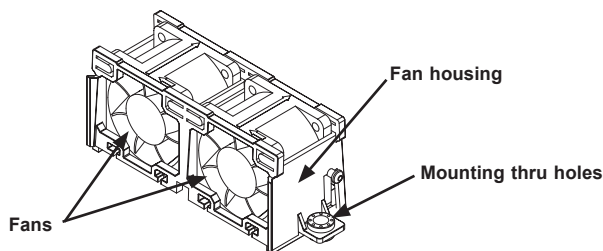


Figure 5-10. System Fans

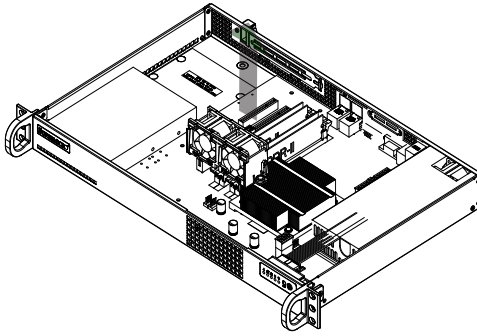


Figure 5-11. Removing Fan Housing from Chassis

6. To remove the fans from the fan housing, gently push **upwards** on the fan from the **underside** of the fan housing. Gently ease the fan out of the top of the fan housing

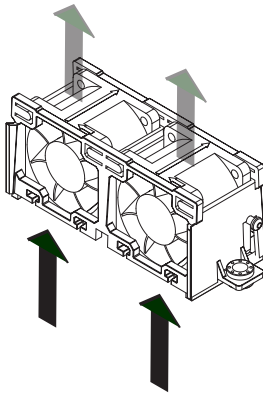


Figure 5-12. Removing Fans from Fan Housing

7. Slide the replacement fan **upwards** through the **bottom** of the fan housing.
8. Reconnect the fan wiring and replace the fan housing in the chassis using the mounting screws previously set aside.

Fans for SC510(T)-203B

The SC510(T)-203B supports up to three system fans to provide optimal cooling for different motherboard designs. Users may move either of the two fans which are included with the SC510(T)-203B to the location where cooling is most beneficial to the system. Users of the SC510(T)-203B also have the option of purchasing a third system fan if additional cooling is required.

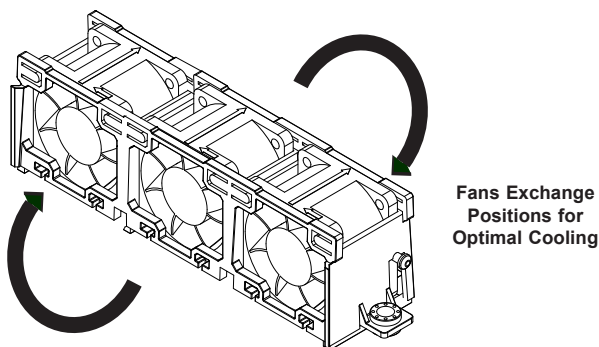


Figure 5-13. SC510(T)-203B Only, Moving Fans for Optimal Cooling

5-10 Power Supply

The SC510 chassis comes equipped with a 200 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.

The SC510 chassis has one power supply. In the unlikely event that the power supply unit fails, the system will shut down and you will need to change the power supply unit.

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

Replacing the Power Supply

1. If necessary, 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.
2. Disconnect all wiring from the power supply.

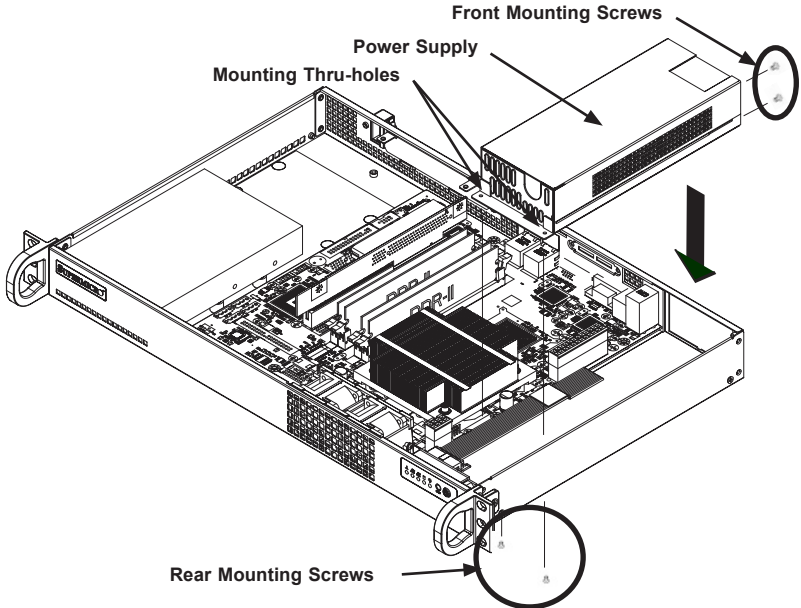


Figure 5-14. Installing the Power Supply

3. Remove the four screws which hold the power supply in the chassis. The two front mounting screws are located on the front of the power supply. The two rear mounting screws are accessed on the underside of the chassis and extend upwards through the mounting thru holes, to hold the power supply in place. Set the screws aside for later use.
4. Remove the power supply from the chassis.
5. Align the mounting thru holes on the power supply with the mounting holes in the chassis and reattach the power supply to the chassis using the four screws which were previously set aside
6. Connect the chassis wiring to the power supply.

Chapter 6

Rack Installation

6-1 Overview

This chapter provides instructions for installing the chassis into a rack. Following these steps in the order given should enable you to have the system installed in a minimal amount of time.

6-2 Unpacking the System

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

Decide on a suitable location for the rack unit that will hold your chassis. It should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. Place it 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 four mounting screws, which you will need if you intend to install the system into a rack. 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 similar environments).

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.
- 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 hard drives and power supply modules to cool before touching them.
- Always keep the rack's front door, all panels and all components on the servers closed when not servicing, in order 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 (for example, the use of power strips, and other devices).



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

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

6-4 Rack Mounting Instructions

This section provides information on installing the SC510 chassis into a rack unit. 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.

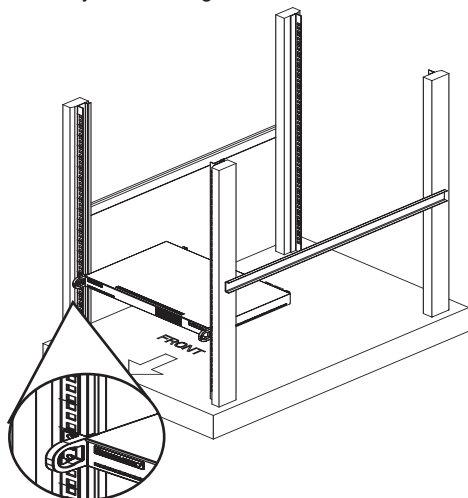


Figure 6-1. Installing the Chassis into a Rack

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



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



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.

Installing the Chassis into a Rack:

1. Confirm that chassis includes the four mounting screws required to mount the chassis into a rack
2. Align the thru-holes of the chassis with the thru-holes of the rack.
3. Insert the mounting screws into the thru-holes in the front of the chassis and through the thru-holes in the rack

Appendix A

Cables, Screws, and other Accessories

A-1 Overview

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

A-2 Cables Included with SC510-200B Chassis

SC510-200B			
Part #	Type	Length	Description
FP813-D	Ribbon	13"	16-pin to 16-pin ribbon cable for control panel
---	Cable	6'	Regional power cord

A-3 Optional Accessories

The following accessories are compatible with the SC510-200B chassis.

Hard Drive Carrier (Tray):

MCP-220-00044-0N 2.5" hard drive carrier. One carrier can hold up to two 2.5" hard drives. The SC510-200B can hold up to two 2.5" hard drive carriers, for a total of four hard drives.

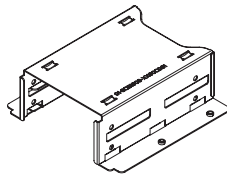


Figure A-1: Hard Driver Carrier

Extending Power Cables

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

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

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

Front Panel to the Motherboard

The SC510 chassis includes a cable to connect the chassis front panel to the motherboard. If your motherboard uses a different connector, use the following list to find a compatible cable.

Front Panel to Motherboard Cable (Ribbon Cable)		
Number of Pins (Front Panel)	Number of Pins (Motherboard)	Cable Part #
16-pin	16-pin	CBL-0049
16-pin	20-pin	CBL-0048
20-pin	20-pin	CBL-0047
16-pin	varies*	CBL-0068
20-pin	varies*	CBL-0067

* Split cables: Use these cable if your motherboard requires several different connections from the front panel.

A-4 Chassis Screws

The accessory box includes all the screws needed to setup your chassis. This section lists and describes the most common screws used. Your chassis may not require all 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]

RAIL



Flat head
M4 x 4 mm
[0.157]



Round head
M4 x 4 mm
[0.157]



Flat head
M5 x 12 mm [0.472]
Washer for M5



M/B STANDOFFS



M/B standoff
6-32 to 6-32



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



Thumb screw
6-32 x 5 mm
[0.197]



1/2 M/B standoff
6-32 x 5 mm
[0.197]



Notes

Appendix B

SC510 Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

		200W (SC510-203B, SC510T-203B)
MFR Part #		PWS-203-1H
Rated AC Voltage		100 - 240V 50 - 60Hz 4-2Amp
+5V standby		2 Amp
+12V		16 Amp
+5V		8 Amp
+3.3V		8 Amp
-12V		0.5 Amp

		200W (SC510L-200B)
MFR Part #		PWS-202-1H
Rated AC Voltage		100 - 240V 50 - 60Hz 3-1.5 Amp Max
+5V standby		2.0 Amp
+12V		15.0 Amp
+5V		16.0 Amp
+3.3V		17.0 Amp
-12V		0.8 Amp

200W (SC510-200B, SC510T-200B)	
MFR Part #	PWS-201-1H
Rated AC Voltage	100 - 240V 50-60Hz 4-2 Amp Max
+5V standby	2.0 Amp
+12V	16.0 Amp
+5V	8.0 Amp
+3.3V	8.0 Amp
-12V	0.5 Amp



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