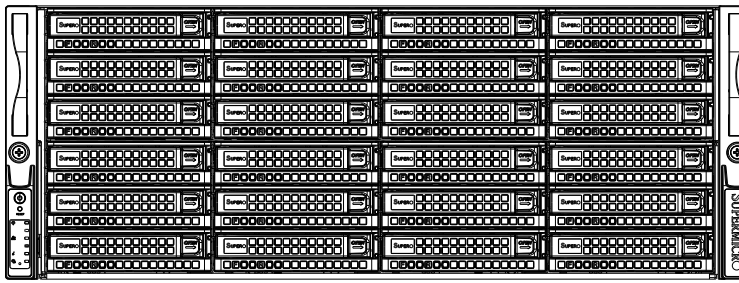
SUPERMICRO®

DOUBLE-SIDED STORAGE

SC847DJ CHASSIS SERIES



SC847DE16-R2K02JBOD SC847DE26-R2K02JBOD

USER'S MANUAL

1.0

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

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

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 SC847DJ chassis. Installation and maintenance should be performed by experienced technicians only.

This manual lists 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 checklist of the main components included with this chassis and describes the main features of the SC847DJ chassis. This chapter also includes contact information.

Chapter 2 Standardized Warning Statements for AC/DC Systems

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

Chapter 3 System Interface

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

Chapter 4 Chassis Setup and Maintenance

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

Chapter 5 Cascading Configurations

Refer to this chapter for detailed information on cascading backplane configurations.

This section lists compatible cables, power supply specifications, and compatible backplanes. Not all compatible backplanes are listed. Refer to our website for the latest compatible backplane information.

Appendix A Hardware

This section provides information on cabling, and other hardware which is compatible with your chassis. For complete information on supported cables and hardware, refer to the Supermico website at www.supermicro.com.

Appendix B Power Supply Specifications

This chapter lists the specifications of the power supply provided with your chassis. For additional information, refer to the Supermicro website at www.supermicro.com.

Appendix C BPN-SAS2-847DF Front Backplane Specifications

This section contains detailed specifications on the BPN-SAS2-847DF front backplane. Additional information can be found on the Supermicro website at www.supermicro.com.

Appendix D BPN-SAS2-847DJ Rear Backplane Specifications

This chapter contains information on the BPN-SAS2-847DJ rear backplane. Additional information can be found on the Supermicro website at www.supermicro.com.

Appendix E BPN-EXP-847DF3-EL1 Expander Specifications

This chapter contains information on the BPN-EXP-847DF3-EL1 front expander card. Additional information can be found on the Supermicro website at www.supermicro.com.

Appendix F CSE-PTJBOD-CB3 Power Card Specifications

This chapter provides information on the CSE-PTJBOD-CB3 power card.

Table of Contents

Notes

Chapter 1

Introduction

1-1 Overview

Optimized for enterprise-level high-capacity storage applications, Supermicro's SC847DJ chassis features 90x 3.5" or 2.5" SAS2/SATA3 hard drives in 45x (24 front + 21 rear) hot-swappable double-depth HDD drive bays (2x HDD per drive bay). The SC847DJ design offers extra high-density of HDD per space ratio in a 4U form factor, high power efficiency, optimized HDD signal trace routing and improved HDD carrier design to dampen HDD vibrations and maximize performance. Equipped with dual redundant 2000W high-efficiency power supplies and seven hot-plug redundant cooling fans, the SC847DJ is a reliable and hassle-free maintenance storage system.

1-2 Shipping List

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

SC847DJ Chassis		
Model	**HDD**	**Power Supply**
SC847DE16-R2K02JBOD	90x SAS/SATA	2000W
SC847DE26-R2K02JBOD	90x SAS/SATA	2000W

1-3 Where to get Replacement Components

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

Europe

Address:	Super Micro Computer B.V. Het Sterrenbeeld 28, 5215 ML 's-Hertogenbosch, The Netherlands
Tel:	+31 (0) 73-6400390
Fax:	+31 (0) 73-6416525
Email:	sales@supermicro.nl (General Information) support@supermicro.nl (Technical Support) rma@supermicro.nl (Customer Support)
Website:	www.supermicro.nl

Asia-Pacific

Address:	Super Micro Computer, Inc. 3F, No. 150, Jian 1st Rd. Zhonghe Dist., New Taipei City 235 Taiwan (R.O.C)
Tel:	+886-(2) 8226-3990
Fax:	+886-(2) 8226-3992
Email:	support@supermicro.com.tw
Website:	www.supermicro.com.tw

1-5 Returning Merchandise for Service

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

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

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

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

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

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

안전을 위한 주의사항

경고!

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

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

BELANGRIJKE VEILIGHEIDSINSTRUCTIES

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

BEWAAR DEZE INSTRUCTIES

Installation Instructions

Warning!

Read the installation instructions before connecting the system to the power source.

設置手順書

システムを電源に接続する前に、設置手順書をお読み下さい。

警告
将此系统连接电源前,请先阅读安装说明。

警告
將系統與電源連接前，請先閱讀安裝說明。

Warnung

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

¡Advertencia!

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

Attention

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

.יש לקרוא את הוראות התקנה לפני חיבור המערכת למקור מתח

اقر إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

시스템을 전원에 연결하기 전에 설치 안내를 읽어주십시오.

Waarschuwing

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

Circuit Breaker

Warning!

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

サーキット・ブレーカー

この製品は、短絡(過電流)保護装置がある建物での設置を前提としています。

保護装置の定格が250 V、20 Aを超えないことを確認下さい。

警告

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

警告

此產品的短路(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250V,20A。

Warnung

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

¡Advertencia!

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

Attention

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

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

هذا المنتج يعتمد على معدات الحماية من الدوائرالقصيرة التي تم تثبيتها في المبنى
تأكد من أن تقييم الجهاز الوقائي ليس أكثر من: 20A, 250V

경고!

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

Waarschuwing

Dit product is afhankelijk van de kortsluitbeveiliging (overspanning) van uw electrische installatie. Controleer of het beveiligde aparaat 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 للالأمان

경고!

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

Waarschuwing

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

Battery Handling

Warning!

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

電池の取り扱い

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

警告
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 והמאוררים 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 조림품 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

安裝此產品時,請使用本身提供的或指定的連接線,電源線和電源適配器.使用其它線材或適配器可能會引起故障或火災。除了Supermicro所指定的產品,電氣用品和材料安全法律規定禁止使用未經UL或CSA認證的線材。(線材上會顯示UL/CSA符號)。

Warnung

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

¡Advertencia!

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

Attention

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

חשמליים ומתאמי AC

אזהרה !

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

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

경고!

제품을 설치할 때에는 제공되거나 지정된 연결케이블과 전원케이블, AC어댑터를 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 UL또는 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

System Interface

3-1 Overview

There are several LEDs on the control panel as well as others on the drive carriers to keep you constantly informed of the overall status of the system as well as the activity and health of specific components. Most SC847DJ models have two buttons on the chassis control panel: A reset button and a power on/off button. This chapter explains the meanings of all LED indicators and the appropriate responses you may need to take.

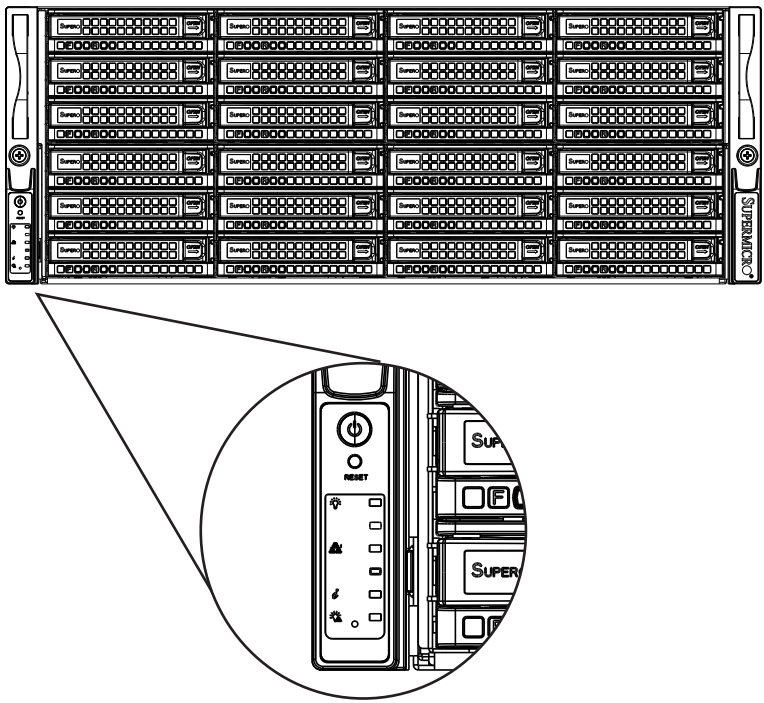


Figure 3-1. Control Panel

3-2 Control Panel Buttons

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

Power: The main power button 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.

UID: Press to toggle the UID function on and off. IPMI IP factory default: Press and hold for ten seconds.

3-3 Control Panel LEDs

The control panel located on the left handle of the SC847DJ chassis has five LEDs. These LEDs provide you with critical information related to different parts of the system. This section explains what each LED indicates when illuminated and any corrective action you may need to take.

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

NIC1: Indicates network activity on GLAN1 when flashing.

Information LED:

Informational LED	
Status	**Description**
Solid red	An overheat condition has occured. (This may be caused by cable congestion).
Blinking red (1Hz)	Fan failure, check for an inoperative fan.
Blinking red (0.25Hz)	Power failure, check for a non-operational power supply.
Solid blue	Local UID has been activated. Use this function to locate the server in a rack mount environment.
Blinking blue (300 msec)	Remote UID is on. Use this function to identify the server from a remote location.
Blinking blue (500 msec)	System is ready to power up. See Section 4-4 of this manual.

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

3-4 Drive Carrier LEDs

The SC847DJ chassis uses SAS or SATA drives.

SAS/SATA Drives

Each SAS/SATA drive carrier has two sets of LEDs, one set of blue and red LED indicators for each drive. These LEDs are distinguished with a letter F indicator for front drives and a letter R indicator for rear drives on the drive carrier bezel. The LEDs function as follows:

Blue Drive Carrier LED Indicator		
Color	**Status**	**Description**
Blue	**Solid on**	Indicates a SAS drive
Blue	**Off**	Indicates a SATA drive
Blue	**Blinking**	Drive is actively being accessed

Each drive carrier has a blue LED. When illuminated in a solid on state, this blue LED (on the front of the SAS/SATA drive carrier) indicates a SAS drive. A connection to the SAS/SATA backplane enables this LED to blink on and off when that particular drive is being accessed.

Red Drive Carrier LED Indicator		
Color	**Status**	**Description**
Red	**Solid on**	Drive failure
Red	**Blinking**	RAID activity

When the red LED is blinking, it indicates that the system is either building, initializing or rebuilding RAID.

SCSI Drives

This chassis does not support SCSI drives at this time.

Chapter 5

Cascading Configurations

5-1 Cascading Configuration Overview

The SC847DJ chassis backplanes can be configured in a variety of combinations for different applications. The following sections will provide cascading configuration options specific to your system.

5-2 Single Node, Single Host Cascading

The following configuration demonstrates cascading in a single node, single host system.

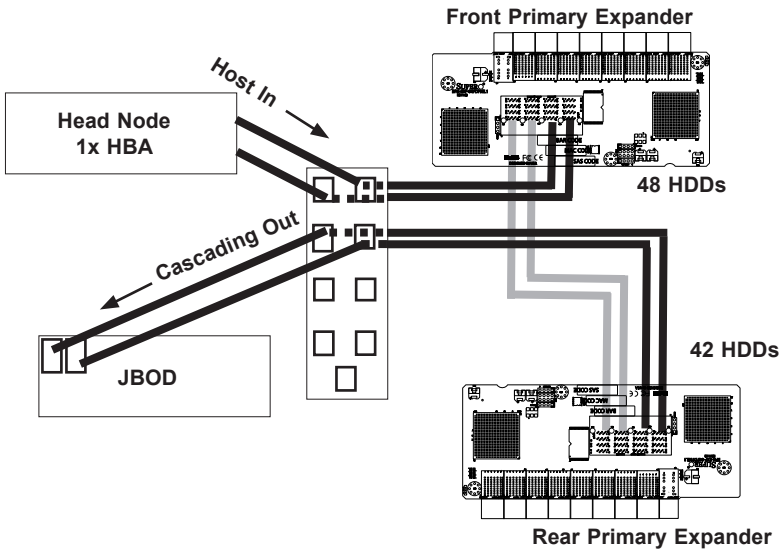


Figure 5-1: Single Node, Single Host Cascading

5-3 Two Node Cluster Failover Configuration Option 1

The following configuration option demonstrates cascading with a two node cluster, which provides high performance, availability and redundancy.

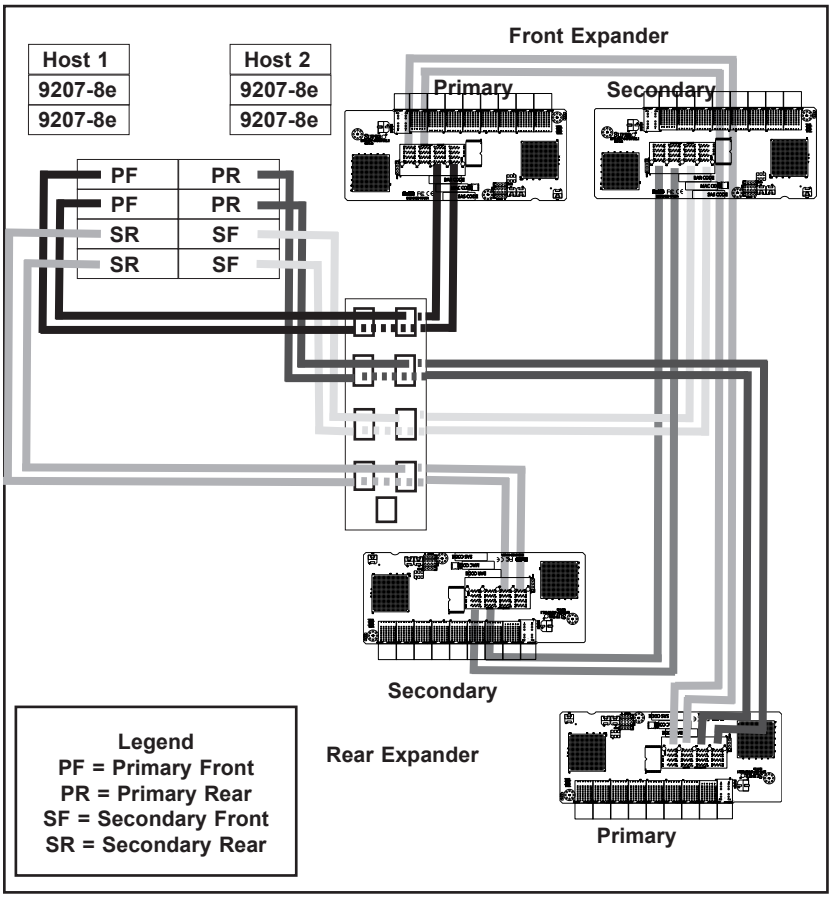


Figure 5-2: Two Node Cluster Failover Configuration

5-4 Two Node Cluster Failover Configuration Option 2

The following configuration option demonstrates cascading with a two node cluster, which provides high performance, availability and redundancy.

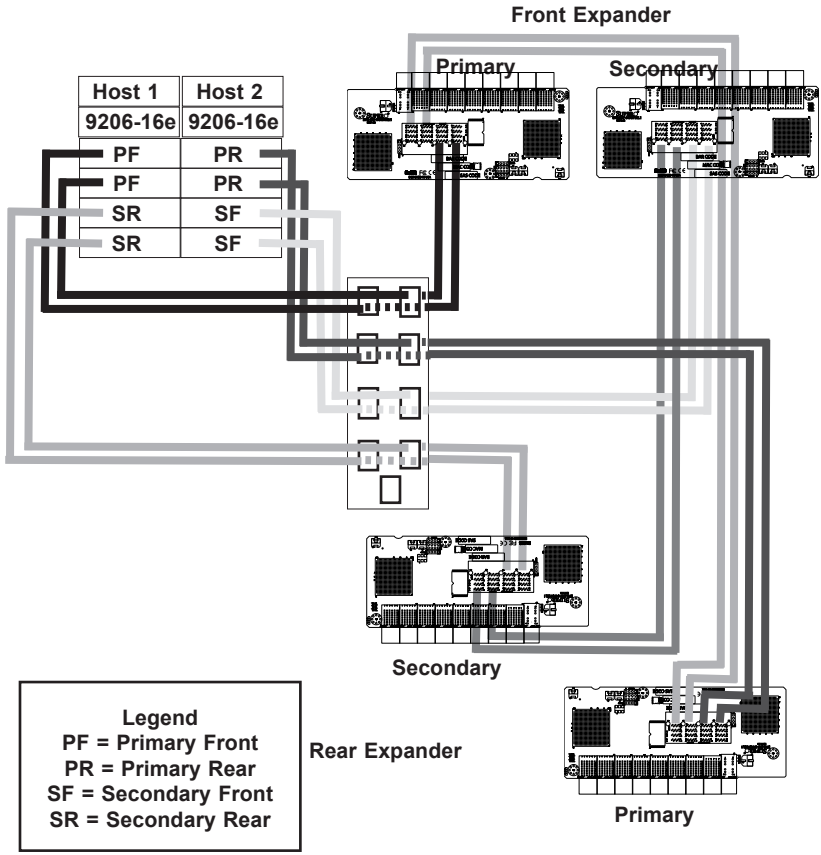


Figure 5-3: Two Node Cluster Failover Configuration

Notes

Chapter 4

Chassis Setup and Maintenance

4-1 Overview

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

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

Safety Warning: Before performing any chassis setup or maintenance, it is recommended that the chassis be removed from the rack and placed on a stable bench or table. For instructions on how to uninstall the chassis from the rack, refer to Chapter 5 Rack Installation in this manual.

4-2 Powering Up and Shutting Down the System

The procedures for powering up and shutting down the SC847DJ differ slightly from typical systems. It is important to become familiar with the procedure and to follow it each time that the system is powered up or shut down.

Powering Up the System

First Time or Power Loss Power Up Procedure

If powering up your system for the first time or after a loss of power, wait until the blue light begins flashing, then press the power button to power up the system.

Typical Power Up Procedure

If the system was powered down correctly the last time it was shut down use, simply press the power button to power up the system.

Powering Down the System

Power Down Procedure

1. Press the power button and hold it down.
2. Wait until the blue light stops flashing.
3. Release the power button.

Optional IPMI Power Up/Down

At any time you may choose to power up or down the server using the IPMI and following the on screen prompts.

4-3 Removing the Two Chassis Covers

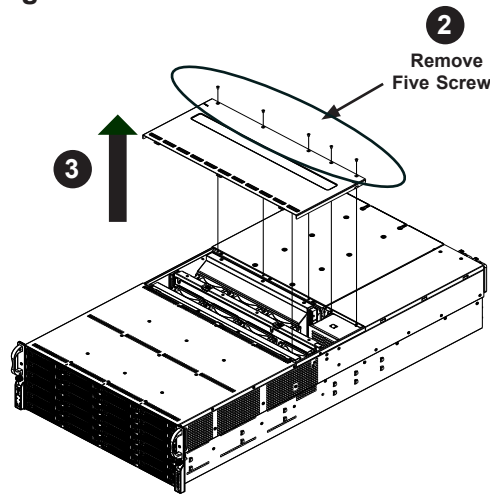


Figure 4-1. Removing the Main Chassis Cover

Main Chassis Cover

Removing Main Chassis Cover

1. Power down the system as described on page 4-2 and unplug the power cords from the rear of the power supplies.
2. Remove the five screws securing the main chassis cover.
3. Lift the cover up and off the chassis as illustrated above.

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.

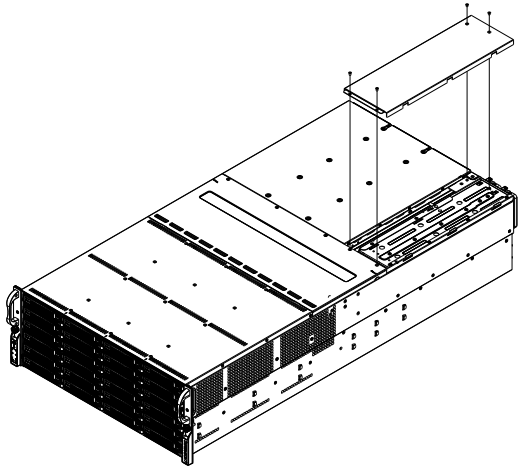


Figure 4-2. Removing the Power Supply Cover

Power Supply Cover

Removing Power Supply Cover

1. Power down the system as described on page 4-2 and unplug the power cords from the rear of the power supplies.
2. Remove the four screws securing the power supply cover.
3. Lift the cover up and off the chassis as illustrated above..

4-4 Installing Hot-Swappable 3.5" Hard Drives

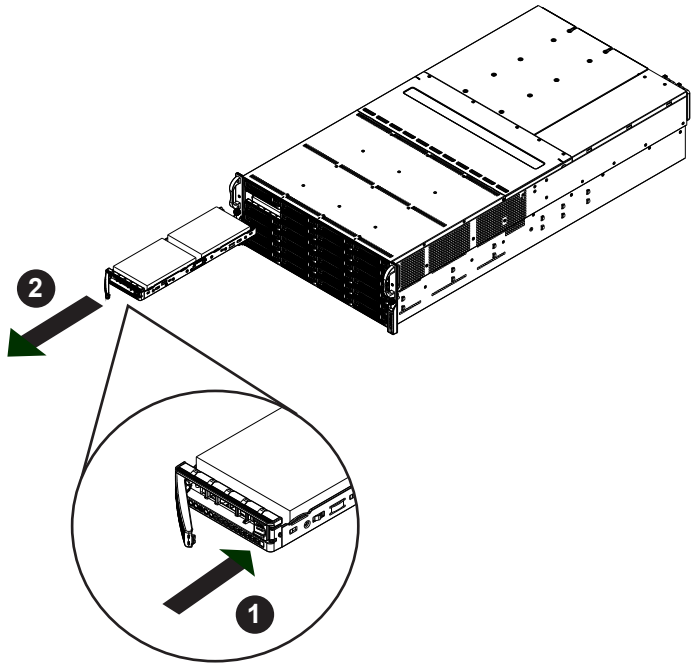


Figure 4-2. Removing a 3.5" Hard Drive Carrier

The SC847DJ chassis supports ninety 3.5" hard drives in forty-five hot-swappable double-depth HDD bays. There are twenty-four hard drive bays in the front of the chassis and twenty-one in the rear. The drives are mounted in double-depth drive carriers to simplify their installation and removal from the chassis. These carriers also help to promote proper airflow through the chassis.

Removing Hard Drive Carriers from the Chassis

1. Press the release button on the drive carrier. This extends the drive carrier handle.

2. Use the handle to pull the drive carrier out of the chassis.

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

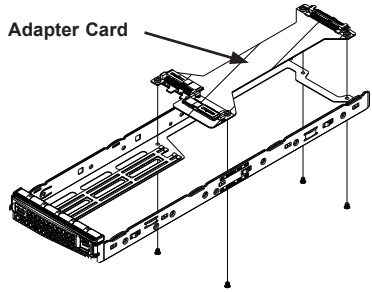


Figure 4-3. Installing the Adapter Board into the Hard Drive Carrier

Installing 3.5" Hard Drives to the Hard Drive Carrier

1. Place the adapter card into hard drive carrier as illustrated above.

2. Secure the adapter card to the hard drive carrier with four specially designed screws included in the adapter card packaging.

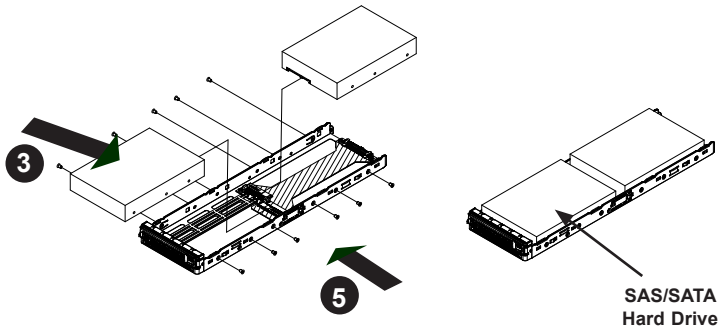


Figure 4-4. Installing 3.5" Hard Drives into the Hard Drive Carrier

3. Insert the first of two 3.5" hard drives into the hard drive carrier at a slight angle on the HDD connector side, with the printed circut board side facing down. Simultaneously plug the connector on the hard drive into the corresponding connector of the adapter card.

4. Align the mounting holes in the hard drive with those in the hard drive carrier.

5. Secure the hard drive to the carrier using six screws.

6. Repeat steps 3 through 5 for the second of the two hard drives.

Warning! Enterprise level hard disk drives are recommended for use in Supermicro chassis and servers. For information on recommended HDDs, visit the Supermicro website at www.supermicro.com.

7. Return the hard drive carrier to the hard drive bay in the chassis. Make sure to close the drive carrier handle to lock the drive carrier into place.

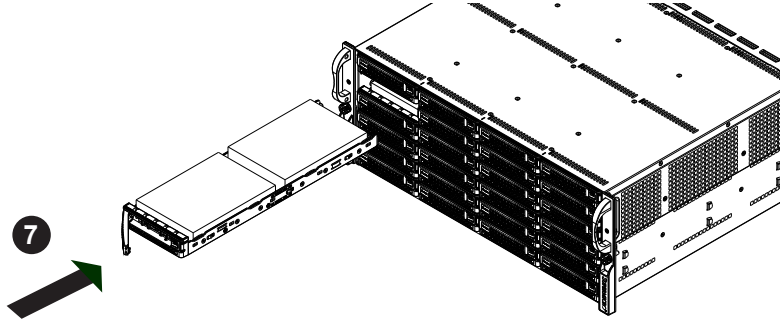


Figure 4-5. Installing the Hard Drives and Carrier into the Chassis

4-5 Assembling the JBOD Compartment Bracket

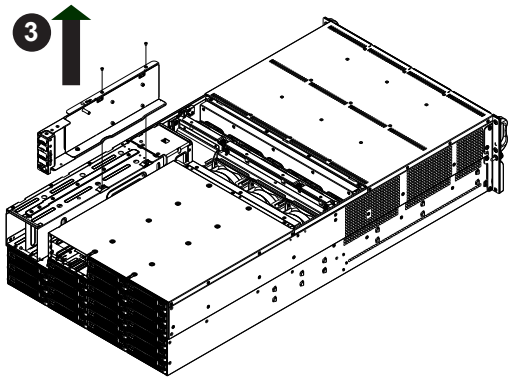


Figure 4-6. Removing the Dummy Bracket

The SC847DJ chassis includes a JBOD compartment bracket, which holds the CSE-PTJBOD-CB3, two or four MCP-280-84701-0N Mini SAS HD converters and one CBL-NTWK-0584 IPMI LAN port extension cable.

Assembling the Components of the JBOD Compartment Bracket

1. Power down the system as described on page 4-2, unplug the power cords from the rear of the power supplies and remove the main chassis cover and power supply cover as described on pages 4-3 and 4-4.

2. Remove the two screws securing the dummy bracket to the chassis and set them aside for later use.

3. Lift the dummy JBOD bracket up and out of the chassis.

4. Secure the CSE-PTJBOD-CB3 to the JBOD compartment bracket using four screws.

5. Secure the IPMI LAN port extension cable onto the JBOD compartment bracket with two screws.

6. Align the four Mini SAS adapters with the JBOD compartment bracket.

7. Secure the IPMI LAN port extension cable connector into the four Mini SAS HD converters and secure it to the plastic holder with three screw.

8. Plug the cables into the CSE-PTJBOD-CB3 and into the internal Mini SAS HD adapter.

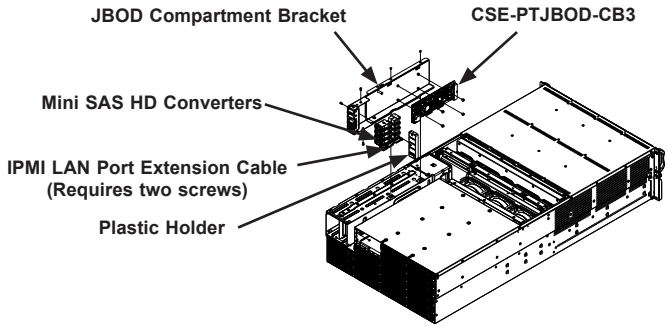


Figure 4-7. Securing Components to the JBOD Compartment Bracket

9. Place the JBOD compartment bracket assembly into the chassis and secure it with the screws previously set aside.

10. Replace the power supply cover and secure it with the screws previously set aside.

11. Replace the main chassis cover and secure it with the screws previously set aside, then power up the system as described on page 4-2.

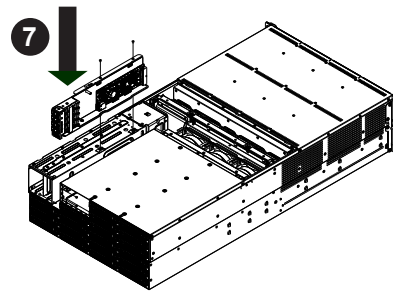


Figure 4-8. Installing the JBOD Compartment Bracket Assembly

4-6 Removing and Installing Backplane Assemblies

The SC847DJ includes two backplane assemblies which consist of front and rear backplanes contained in brackets, fitted with expander boards. The front backplane assembly is located directly in front of the fan bracket at the front of the chassis. The rear backplane assembly is located behind the fan bracket.

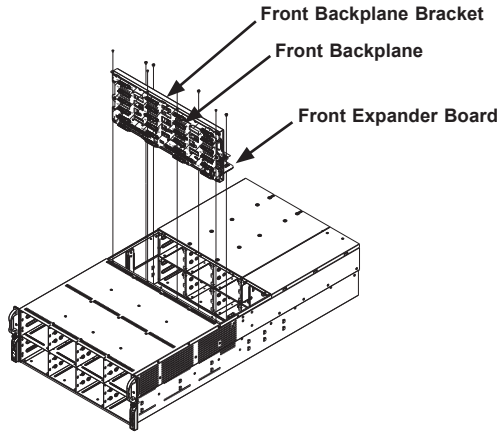


Figure 4-9. Components of the Front Backplane Assembly

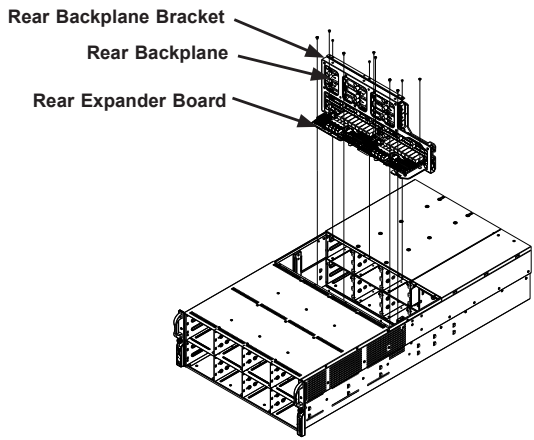


Figure 4-10. Components of the Rear Backplane Assembly

Front Backplane Removal and Installation

Removing and Installing the Front Backplane Assembly

1. Power down the system as described on page 4-2, unplug the power cords from the rear of the power supplies and remove the chassis main cover as described on page 4-3.
2. Remove the four upper screws along the top of the front backplane bracket.
3. Remove the eight lower screws securing the front backplane assembly to the floor of the chassis through the expander board, and set them aside for later use.
4. Lift the front backplane assembly up and out of the chassis.
5. Remove the ten screws which fasten the two halves of the backplane bracket together and set these aside for later use.
6. Separate the backplane from the backplane bracket from each other and lift the front backplane out of its bracket.
7. Carefully pull the expander board out of its slot in the backplane.

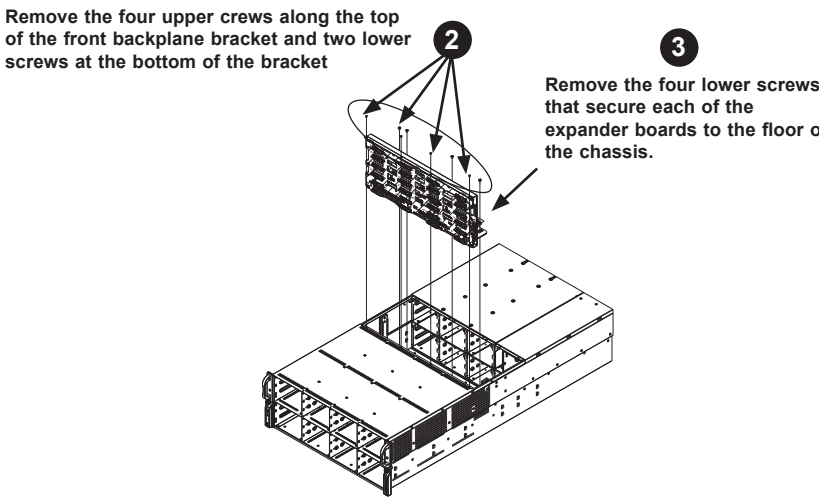


Figure 4-11. Removing the Front Backplane Assembly

8. Insert the replacement front expander board into the backplane.

9. Place the replacement front backplane in the front backplane bracket and secure the two halves of the bracket together with the ten screws previously set aside.

10. Place the front backplane, bracket and expander board assembly in the chassis.

11. Secure the assembly along the top of the backplane with the four upper screws previously set aside.

12. Secure the assembly to the floor of the chassis through the expander board with the lower screws previously set aside.

13. Connect the cables to the backplane.

14. Plug the power cords back into the power supplies, replace the main chassis cover and power up the system as described on page 4-2.

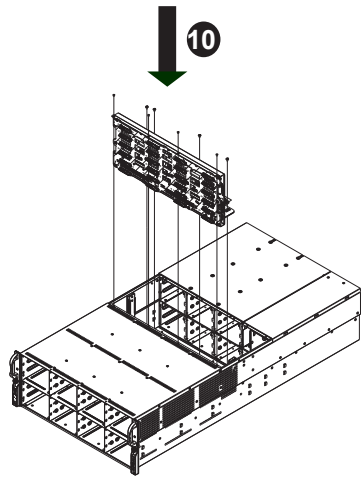


Figure 4-12. Installing the Front Backplane Assembly

Rear Backplane Removal and Installation

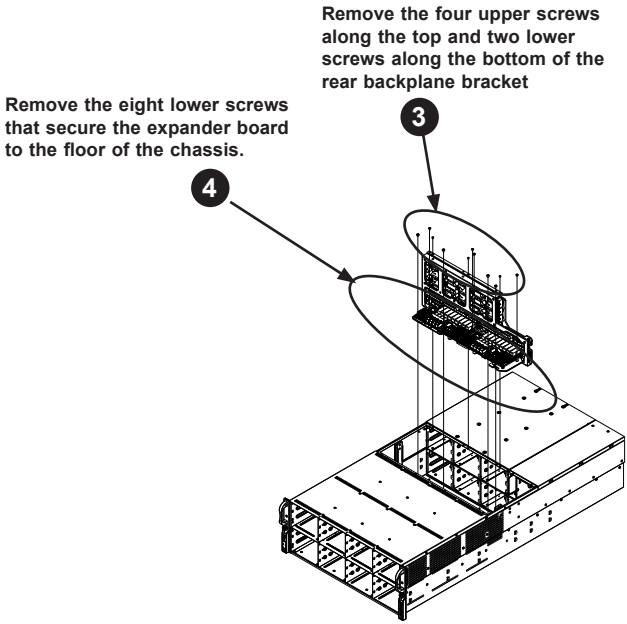


Figure 4-13. Installing the Rear Backplane Assembly

Removing and Installing the Rear Backplane Assembly

1. Power down the system as described on page 4-2, unplug the power cords from the rear of the power supplies and remove the chassis main cover as described on page 4-3.

2. Remove the six screws securing the power distributor board and set them aside for later use. Lift the power distributor board up and out of the chassis.

3. Remove the four upper screws along the top of the rear backplane bracket.

4. Remove eight screws along the bottom of the backplane.

5. Lift the rear backplane assembly up and out of the chassis.

6. Remove the six screws which fasten the two halves of the backplane bracket together and set these aside for later use.

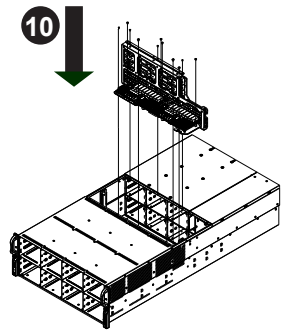


Figure 4-14. Installing the Rear Backplane Assembly

7. Separate the two halves of the backplane bracket from each other and lift the rear backplane out of its bracket.

8. Carefully pull the rear expander board out of its slot in the backplane.

9. Insert the replacement rear expander board into the backplane.

10. Place the replacement rear backplane in the rear backplane bracket and secure the two halves of the bracket together with the six screws previously set aside.

11. Place the rear backplane, bracket and expander board assembly in the chassis.

12. Secure the assembly along the top of the backplane with the four upper lower screws previously set aside.

13. Secure the assembly to the floor of the chassis through the expander board with the eight lower screws previously set aside.

14. Reinstall the power distributor board and secure it in the chassis using the six screws previously set aside.

15. Connect the cables to the backplane.

16. Plug the power cords back into the power supplies, replace the main chassis cover and power up the system as described on page 4-2.

4-7 Installing the Air Shroud

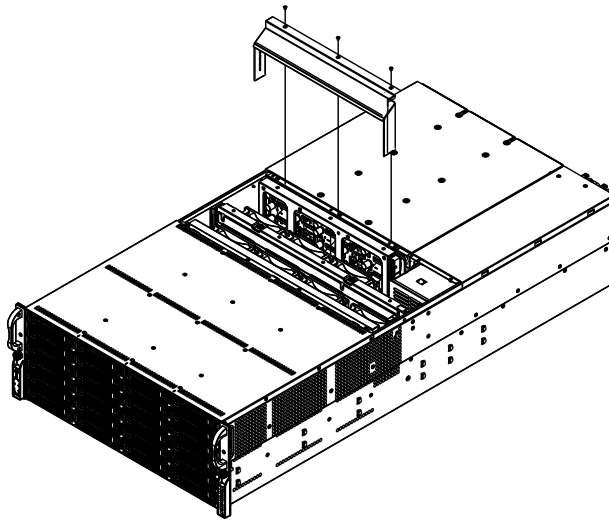


Figure 4-15. Installing the Air Shroud

Air shrouds concentrate airflow to maximize fan efficiency. The SC847DJ uses an air shroud to optimize cooling within the chassis.

Installing the Air Shroud

1. Power down the system as described on page 4-2, unplug the power cords from the rear of the power supplies and remove the main chassis cover as described on page 4-3.

2. Place the air shroud in the chassis as illustrated above. The air shroud fits behind the fans.

3. Secure the airshroud with three screws.

4. Plug the power cords back into the power supplies, replace the main chassis cover and power up the system as described on page 4-2.

4-8 Checking the Server's Airflow

Checking the Airflow

1. Make sure there are no objects to obstruct airflow in and out of the server. In addition, if you are using a front bezel, make sure the bezel's filter is replaced periodically.

2. Do not operate the server without drives or drive trays in the drive bays. Use only recommended server parts.

3. Make sure no wires or foreign objects obstruct air flow through the chassis. Pull all excess cabling out of the airflow path or use shorter cables.

The control panel LEDs inform you of system status. See “Chapter 3: System Interface” for details on the LEDs and the control panel buttons.

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

4-9 System Fans

Seven hot-swappable, heavy-duty fans provide cooling for the chassis. These fans circulate air through the chassis thereby lowering the chassis internal temperature. The SC847DJ chassis is designed with the option to remove individual fans or to remove the entire fan housing.

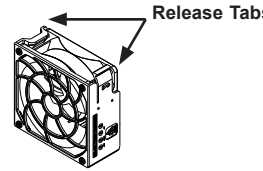


Figure 4-16. System Fan

Replacing an Inidvidual System Fan (Hot Swap Method)

1. Remove the main chassis cover (page 4-3) while the power is running to determine which fan has failed. (Never run the server for an extended period of time with the chassis top covers off).

2. Remove the failed fan from the housing by simultaneously pressing both of the fan's release tabs.
   CAUTION: Fans will continue to rotate for a brief time after removing them from the chassis. To avoid injury, keep fingers clear of the rotating fan blades.

3. Lift the failed fan up and out of the fan housing.

4. Place the new fan into the vacant space in the housing while making sure the arrows on the top of the fan (indicating airflow direction) point in the same direction as the arrows on the other fans.

5. Power up the system as described on page 4-2 and check that the fan is working properly before replacing the chassis cover as described on page 4-3.

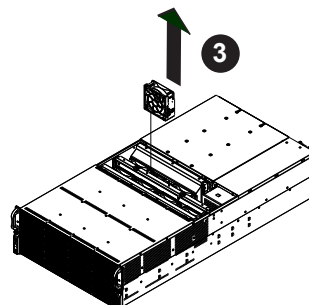


Figure 4-17. Removing an Individual Fan From the Housing (Standard Method)

Removing the Fan Housing (Optional Method)

1. Remove the main chassis cover as described on page 4-3 while the power is running to determine which fan has failed. Never run the server for an extended period of time with the chassis top covers off.

2. Power down the system as described on page 4-2 and unplug the power cords from the rear of the power supplies.

3. Remove the two side screws as illustrated below.

4. Disconnect the wiring to the fans.

5. Lift the fan housing up and out of the chassis.

6. Simultaneously press the release tabs of the fan(s) you wish to remove from the housing as shown in Figure 4-23.

7. Replace any fan cables or wiring needed.

8. Place the new fan into the vacant space in the housing while making sure the arrows on the top of the fan (indicating airflow direction) point in the same direction as the arrows on the other fans.

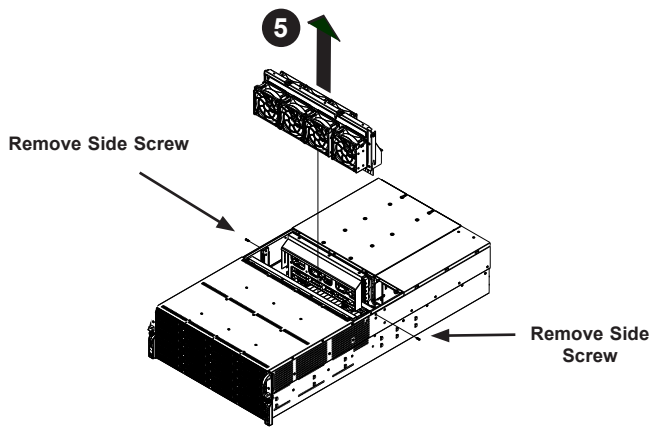


Figure 4-18. Removing the Fan Housing (Optional Method)

9. Return the fan housing to its original position in the chassis and secure it with the two side screws previously set aside.

10. Reconnect the wiring to the fan.

11. Replace the main chassis cover as described on page 4-3, reconnect the power cords to the rear of the power supplies and power up the system as described on page 4-2.

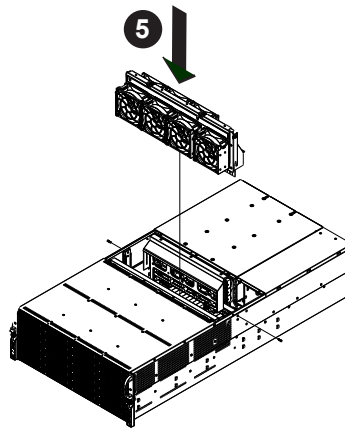


Figure 4-19. Installing the Fan Bracket

4-10 Power Supply

The SC847DJ chassis features redundant 2000W (1+1) 95% efficient Platinum Level digital power supplies. These power supplies are auto-switching capable. This enables them 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.

Redundant power supplies are hot-swappable, and can be changed without powering down the system. New units can be ordered directly from Supermicro (see contact information in the Preface).

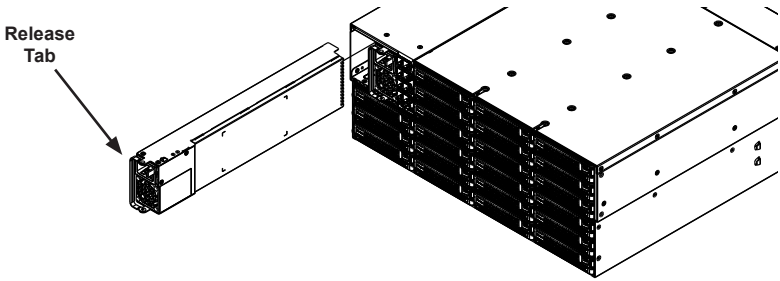


Figure 4-20. Installing the Power Supply

Changing the Power Supply

1. Your chassis includes a redundant power supply (two power modules), which allows you to leave the server running and remove only one power supply at a time.

2. Remove the power cord from the rear of the power supply that you wish to remove from the chassis.

3. Press the release tab and pull the power supply out of the chassis using the handle provided.

4. Replace the failed power module with another of the same model.

5. Push the new power supply module into the power bay until it clicks into the locked position.

6. Plug the AC power cord back into the module.

4-11 Replacing the Power Distributor

The SC847DJ chassis comes equipped with a power distributor. In the unlikely event that you need to replace the power distributor, use the following instructions.

Changing the Power Distributor

1. Power down the chassis as described on page 4-2, uplug the power cords from the rear of the power supplies and remove the power distributor cover as described on page 4-4.
2. Remove the two side screws as illustrated below.
3. Lift the power distributor up and out of the chassis.
4. Put a replacement power distributor of the same model into the power distributor bay.
5. Replace the side screws, plug the power cords into the rear of the power supplies and power up the system as described on page 4-2.

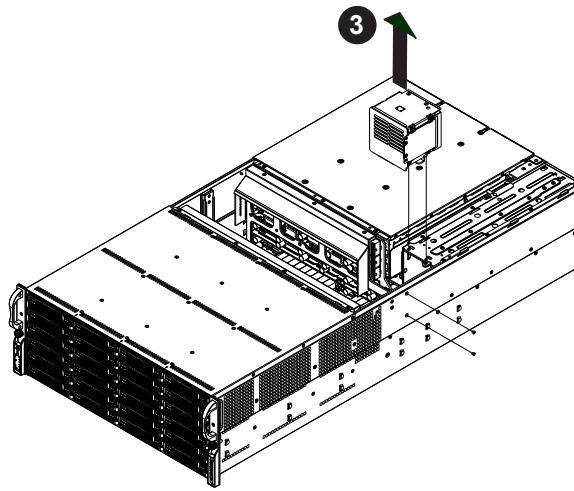


Figure 4-21. Removing the Power Distributor

Notes

Appendix A

SC847DJ Cables and Hardware

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 SC847DJ Chassis (SAS/SATA)

SC847DJ				
Part #	**Type**	**Qty**	**Length**	**Description**
CBL-0157L-01	Ribbon Cable	1	61.5 cm	8-pin to 8-pin ribbon SGPIO cable with tube
CBL-NTWK-0584	Cable	1	7 cm	CAT 5e RJ45 extension cable for SC847D JBOD internal male to female adapter with PCBA, 24AWG
CBL-SAST-0568	Cable	2	35 cm	Internal Mini-SAS HD to Mini-SAS HD,30AWG,12Gb/
CBL-SAST-0593	Cable	2	60 cm	Internal Mini-SAS HD to Mini-SAS HD, 30AWG,12Gb/s
CBL-SAST-0157L	Ribbon Cable	1	40 cm	8-pin to 8-pin ribbon SGPIO cable with tube
CBL-PWCD-0578	Power Cord	2	Approx. 3' (1 meter)	Power Cord Type IEC (C14 to C13) (14AWG), 15A, 250V
CBL-SAST-0531	Cable	2	80 cm	Internal Mini-SAS HD to Mini-SAS HD 80cm, 30AWG,12Gb/s

A-4 Chassis Screws

The accessory box includes all the screws needed to set up 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]

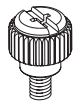
Round head
M4 x 4 mm
[0.157]

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

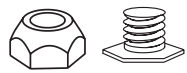
M/B STANDOFFS

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

Appendix B

SC847DJ Power Supply Specifications

This appendix lists power supply specifications for your chassis system.

SC847DJ	
	2000W
MFR Part #	PWS-2K02P-1R
AC Input	1100W Output @ 100-120V, 12.7-10.5A, 50-60Hz 1400W Output @ 120-140V, 13.5-11.5A, 50-60Hz 1800W Output @ 200-220V, 10.0-9.5A, 50-60Hz 1980W Output @ 220-230V, 10.0-9.8A, 50-60Hz 2000W Output @ 230-240V, 10.0-9.8A, 50-60Hz
5Vsb	4A
I²C Remote Monitoring	FRU Data/SMBus/PMBus

Notes

Appendix C

BPN-SAS2-847DF Backplane Specifications

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

C-1 ESD Safety Guidelines

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

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

C-2 General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the BPN-SAS2-847DF backplane.
- Disconnect the power cable before installing or removing any cables from the BPN-SAS2-847DF backplane.
- Make sure that the BPN-SAS2-847DF backplane is securely and properly installed on the motherboard to prevent damage to the system due to a power shortage.

C-3 An Important Note to Users

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

C-4 Introduction to the BPN-SAS2-847DF Backplane

The BPN-SAS2-847DF backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects BPN-SAS2-847DF Revision 1.02, BPN-EXP-847DF3EL1 Revision 1.02 and MCP-280-00024-0N Revision 1.02, the most current releases available at the time of publication. Always refer to the Supermicro website at www.supermicro.com for the latest updates, compatible parts and supported configurations.

C-5 Overview of the SC847DJ Chassis Configuration

The SC847DJ chassis configuration consists of the following components: One BPN-SAS2-847DF front backplane, one BPN-SAS2-847DJ rear backplane, one or two BPN-EXP-847DF3EL1 expander card(s) on the front backplane, one or two BPN-EXP-847DF3EL1 expander card(s) on the rear backplane, and a total of thirty-six MCP-280-00024-0N adapter cards in double-depth hard drive carriers. Refer to the SC847D chassis manual for removal and installation instructions.

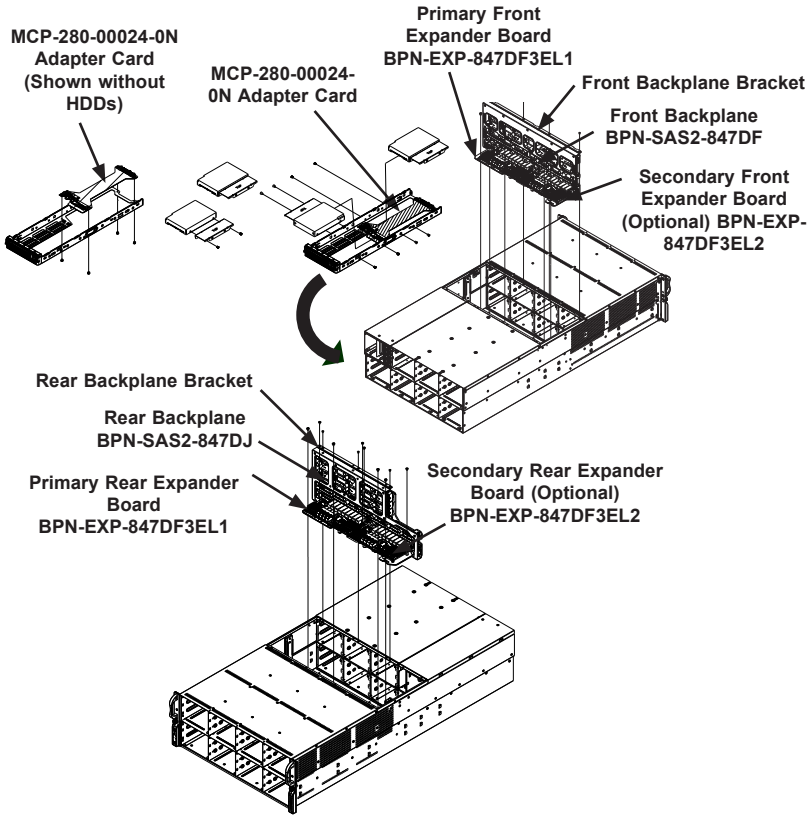


Figure C-1. SC847DJ Chassis Configuration

C-6 BPN-SAS2-847DF Backplane Front Connectors

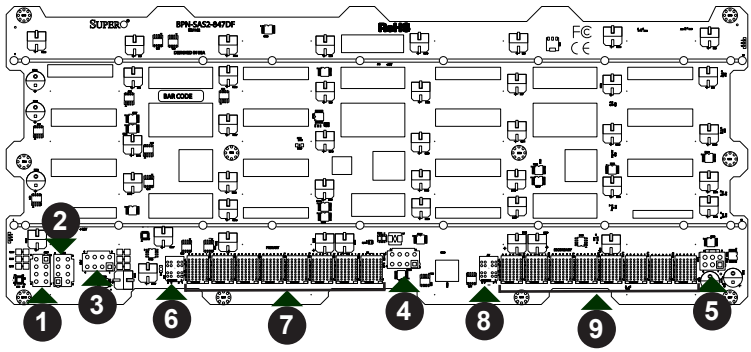


Figure C-2. BPN-SAS2-847DF Backplane Front Connectors

Front Connectors

1. Main Power Connector: JPW1
2. Main Power Connector: JPW2
3. Main Power Connector: JPW3
4. Main Power Connector: JPW4
5. Main Power Connector: JPW5
6. Primary Expander Power Connector: J26
7. Primary Airmax Connectors: P_M1 to P_M8
8. Secondary Expander Power Connector: J27
9. Secondary Airmax Connectors: S_M1 to S_M8

1. - 3. Power Connectors

These connectors, designated JPW1, JPW2. JPW3, JPW4 and JPW5 supply power to the chassis.

4. Primary Expander Power Connector

Supplies power to the primary expander board. This connector is designated J26.

5. Primary Airmax Connectors

These connectors are SAS2 signal connectors that connect the backplane and the primary expander board. These connectors are designated P-M1 through P_M8.

6. Secondary Expander Power Connector

Supplies power to the secondary expander board. This connector is designated J27.

7. Secondary Airmax Connectors

These connectors are SAS2 signal connectors that connect the backplane and the secondary expander board. These connectors are designated S-M1 through S_M8.

C-7 BPN-SAS2-847DF Rear SAS2 Receptacles

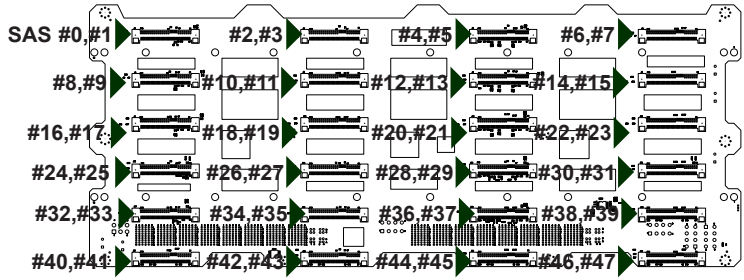


Figure C-3. BPN-SAS2-847DF Rear SAS2 Receptacles

Rear SAS2 Receptacles		
Rear Receptacle	**SAS Drive Number**	**Reference**
SAS #0, #1	HDD 0, 1	J1
SAS #2, #3	HDD 2, 3	J2
SAS #4, #5	HDD 4, 5	J3
SAS #6, #7	HDD 6, 7	J4
SAS #8, #9	HDD 8, 9	J5
SAS #10, #11	HDD 10, 11	J6
SAS #12, #13	HDD 12, 13	J7
SAS #14, #15	HDD 14, 15	J8
SAS #16, #17	HDD 16, 17	J9
SAS #18, #19	HDD 18, 19	J10
SAS #20, #21	HDD 20, 21	J11
SAS #22, #23	HDD 22, 23	J12
SAS #24, #25	HDD 24, 25	J13
SAS #26, #27	HDD 26, 27	J14
SAS #28, #29	HDD 28, 29	J15
SAS #30, #31	HDD 30, 31	J16
SAS #32, #33	HDD 32, 33	J17
SAS #34, #35	HDD 34, 35	J18
SAS #36, #37	HDD 36, 37	J19
SAS #38, #39	HDD 38, 39	J20
SAS #40, #41	HDD 40, 41	J21
SAS #42, #43	HDD 42, 43	J22
SAS #44, #45	HDD 44, 45	J23
SAS #46, 47	HDD 46, 47	J24

Appendix D

BPN-SAS2-847DJ Backplane Specifications

D-1 Chassis Configuration

The SC847DJ chassis configuration consists of the following components:

- One front backplane, BPN-SAS2-847DF
- One rear backplane, BPN-SAS2-847DJ
- One or two rear expander cards, BPN-EXP-847DF3EL1 on each backplane
- Forty-five adapter cards, MCP-280-00024-0N, in double-depth hard drive carriers which support two 3.5" hard drives.

Refer to the chassis manual for removal and installation instructions.

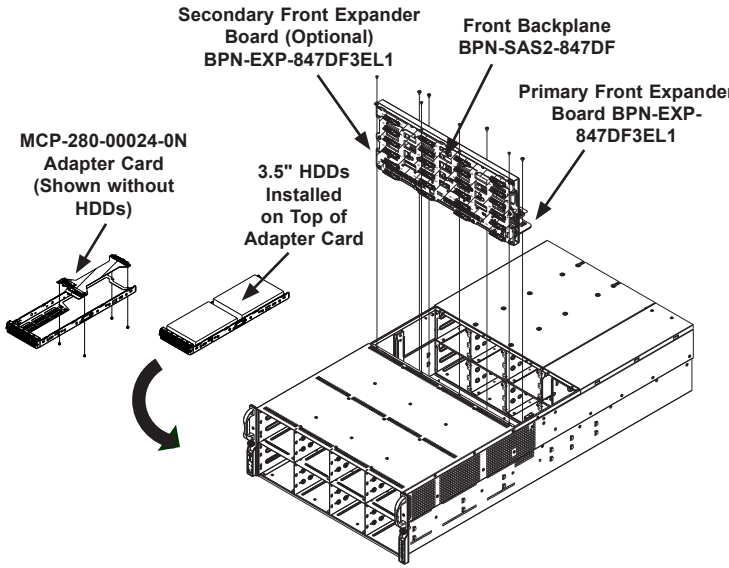


Figure D-1. BPN-SAS2-847DF Front Backplane Configuration

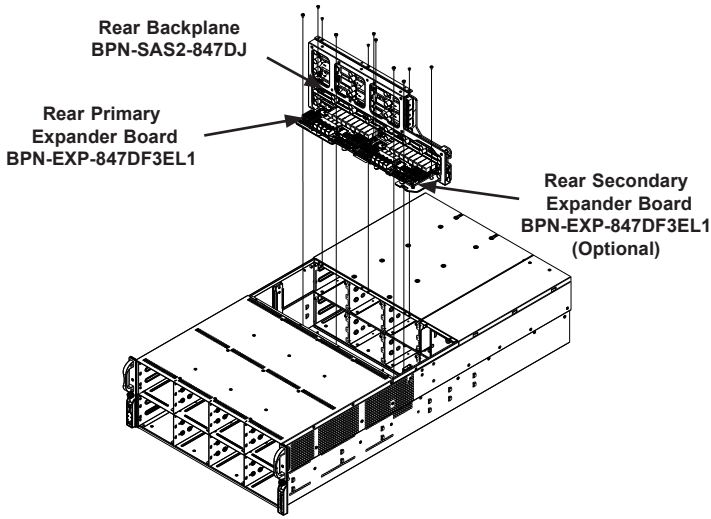


Figure D-2. BPN-SAS2-847DJ Rear Backplane Configuration

D-2 Version at Time of Publication

The backplanes have been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects BPN-SAS2-847DJ Revision 1.0, BPN-SAS2-847DF Revision 1.02, BPN-EXP-847DF3EL1 Revision 1.02 and MCP-280-00024-0N Revision 1.02, the most current releases available at the time of publication. Always refer to the Supermicro web site at www.supermicro.com for the latest updates, compatible parts and supported configurations.

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

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

D-3 ESD Safety Guidelines

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

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

D-4 General Safety Guidelines

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

D-5 BPN-SAS2-847DJ Backplane

Front Connectors

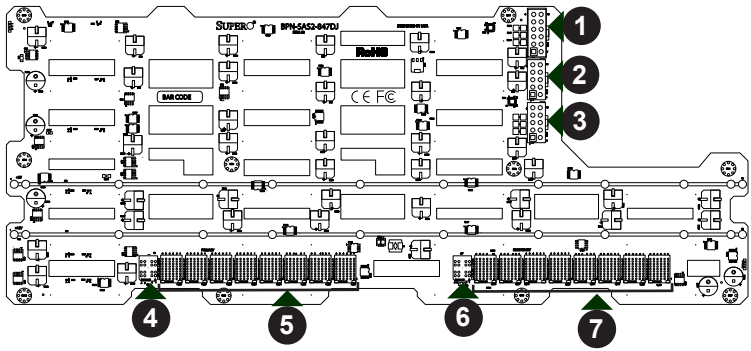


Figure D-3. BPN-SAS2-847DJ Backplane Front Connectors

Front Connectors

1. Main Power Connector: JPW1
2. Main Power Connector: JPW2
3. Main Power Connector: JPW3
4. Primary Expander Power Connector: J26
5. Primary Airmax Connectors: P_M1 to P_M8
6. Secondary Expander Power Connector: J27
7. Secondary Airmax Connectors: S_M1 to S_M8

1. - 3. Power Connectors

These connectors, designated JPW1, JPW2 and JPW3 supply power to the chassis.

4. Primary Expander Power Connector

Supplies power to the primary expander board. This connector is designated J26.

5. Primary Airmax Connectors

These connectors are SAS2 signal connectors that connect the backplane and the primary expander board. These connectors are designated P-M1 through P_M8.

6. Secondary Expander Power Connector

Supplies power to the secondary expander board. This connector is designated J27.

7. Secondary Airmax Connectors

These connectors are SAS2 signal connectors that connect the backplane and the secondary expander board. These connectors are designated S-M1 through S_M8.

Rear SAS2 Receptacles

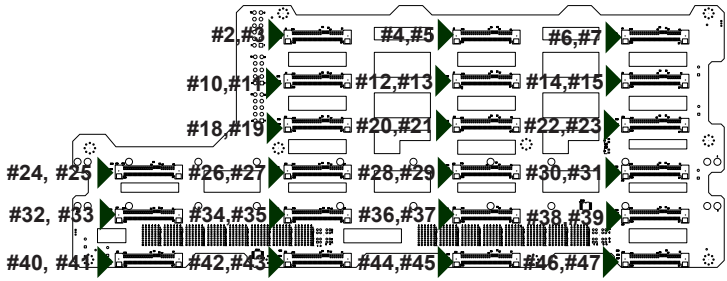


Figure D-4. BPN-SAS2-847DJ Rear SAS2 Receptacles

Rear SAS2 Receptacles		
Rear Receptacle	**SAS Drive Number**	**Reference**
SAS #2, #3	HDD 2, 3	J2
SAS #4, #5	HDD 4, 5	J3
SAS #6, #7	HDD 6, 7	J4
SAS #10, #11	HDD 10, 11	J6
SAS #12, #13	HDD 12, 13	J7
SAS #14, #15	HDD 14, 15	J8
SAS #18, #19	HDD 18, 19	J10
SAS #20, #21	HDD 20, 21	J11
SAS #22, #23	HDD 22, 23	J12
SAS #24, #25	HDD 24, 25	J13
SAS #26, #27	HDD 26, 27	J14
SAS #28, #29	HDD 28, 29	J15
SAS #30, #31	HDD 30, 31	J16
SAS #32, #33	HDD 32, 33	J17
SAS #34, #35	HDD 34, 35	J18
SAS #36, #37	HDD 36, 37	J19
SAS #38, #39	HDD 38, 39	J20
SAS #40, #41	HDD 40, 41	J21
SAS #42, #43	HDD 42, 43	J22
SAS #44, #45	HDD 44, 45	J23
SAS #46, 47	HDD 46, 47	J24

Notes

Appendix E

BPN-EXP-847DF3EL1 Backplane Specifications

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

E-1 ESD Safety Guidelines

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

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

E-2 General Safety Guidelines

- Always disconnect power cables before installing or removing any components from the computer, including the BPN-EXP-847DF3EL1 backplane.
- Disconnect the power cable before installing or removing any cables from the BPN-EXP-847DF3EL1 backplane.
- Make sure that the BPN-EXP-847DF3EL1 backplane is securely and properly installed on the motherboard to prevent damage to the system due to a power shortage.

E-3 An Important Note to Users

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

E-4 About the BPN-EXP-847DF3EL1 Backplane

The BPN-EXP-847DF3EL1 backplane has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

This manual reflects BPN-SAS2-847DF Revision 1.02, BPN-EXP-847DF3EL1 Revision 1.02 and MCP-280-00024-0N Revision 1.02, the most current releases available at the time of publication. Always refer to the Supermicro website at www.supermicro.com for the latest updates, compatible parts and supported configurations.

E-5 Overview of the SC847DJ Chassis Configuration

The BPN-SAS2-847DF backplane configuration consists of the following components: One BPN-EXP-847DF backplane, one or two BPN-EXP-847DF3EL1 expander board, twenty-four MCP-280-00024-0N adapter cards in double-depth hard drive carriers, and one optional BPN-847DF3EL1 secondary expander board. Refer to Chapter 4 of this manual for removal and installation instructions.

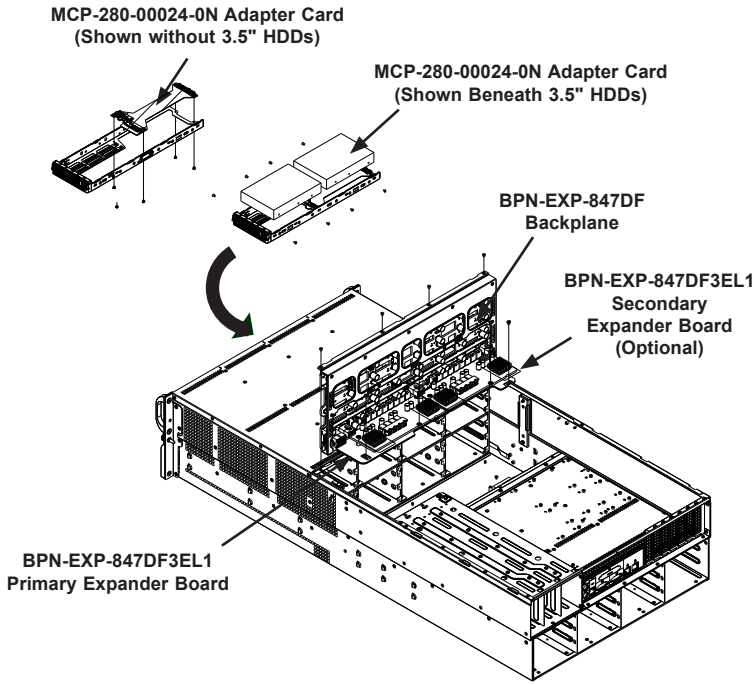


Figure E-1. BPN-SAS2-847DF Backplane Configuration

E-6 BPN-EXP-847DF3EL1 Expander Boards

The BPN-EXP-847DF3EL1 expander boards plug into the BPN-SAS2-847DF2EL1 backplane. One or two expander boards may be used.

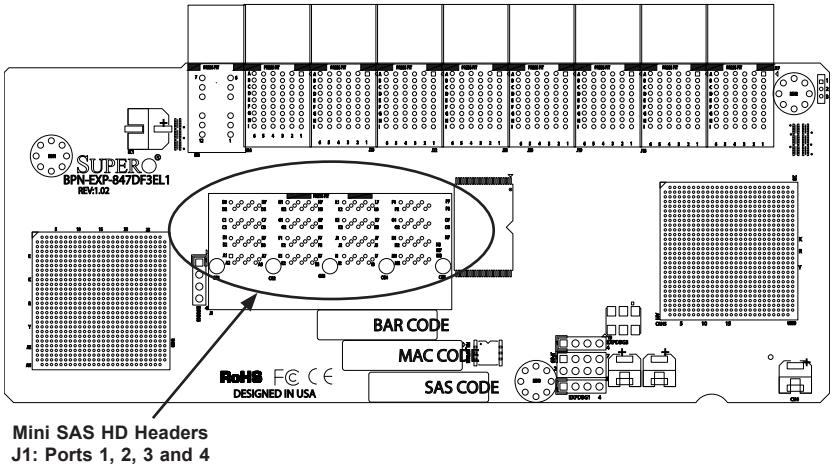


Figure E-2. BPN-EXP-847DF3EL1 SAS Mini Headers

BPN-EXP-847DF1EL1 SAS Mini Headers	
Header J1	**Pins**
Port 1	SAS downstream 1
Port 2	SAS downstream 2
Port 3	SAS downstream 3
Port 4	SAS downstream 4

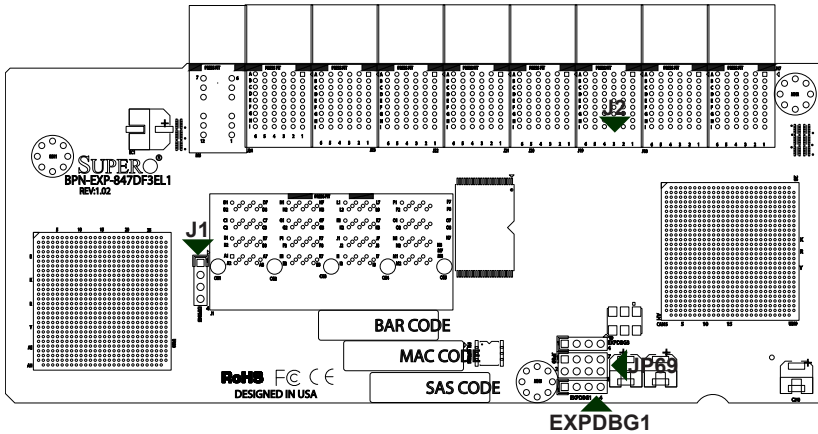


Figure E-3. BPN-EXP-847DF1EL1 Connectors

BPN-EXP-847DF3EL1	
Name	**Function**
EXPDBG1	Debug, for manufacturer use only
EXPDBG5	Debug, for manufacturer use only
J1	SAS connector
JP69	Reserved for SMC CB3

Notes

Appendix F

CSE-PTJBOD-CB3 Power Card Specifications

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

F-1 ESD Safety Guidelines

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

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

F-2 General Safety Guidelines

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

F-3 An Important Note to Users

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

F-4 Introduction to the CSE-PTJBOD-CB3 Power Board

The CSE-PTJBOD-CB3 model power board has been designed to utilize the most up-to-date technology available, providing your system with reliable, high-quality performance.

The CSE-PTJBOD-CB3 allows the user to remotely control their jobs via IPMI, such as powering on/off the server, controlling fan speeds and reading temperature data from the backplane.

This manual reflects the CSE-PTJBOD-CB3 Revision 1.02 power board, the most current release available at the time of publication. Always refer to the Supermicro web site at www.supermicro.com for the latest updates, compatible parts and supported configurations.

F-5 Components and Connectors

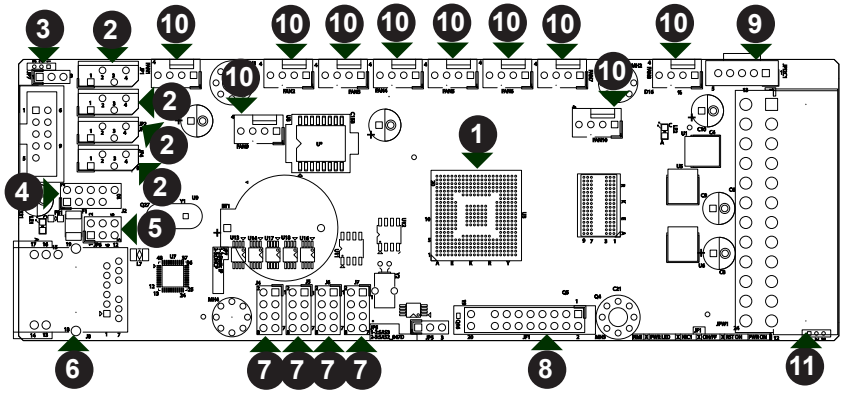


Figure F-1. Components and Connectors on the CSE-PTJBOD-CB3

Components and Connectors

1. BMC Chip
2. SAS2/SAS3 I²C Connectors JP1-JP4
3. Manufacturing Test Connector: J3
4. Manufacturer's USB Test Connector: FB1
5. IPMI LAN LED Header: JP6
6. IPMI LAN Connector: J8
7. SC847D SAS2 I²C Connectors: J4 - J7
8. Control Panel Connector: JF1
9. PMBus Connector: JPI²C1
10. Fan Connectors: FAN1 - FAN10
11. ATX Power Connector: JPW1

F-6 Component and Connector Definitions

1. BMC Chip

The Baseboard Management Controller (BMC) chip monitors the physical state of a system and provides communication with the system administrator through an independent connection.

2. SAS2/SAS3 I²C Connectors

These connectors are designated JP1-JP4 and allow the power board to be connected to up to four SAS2/SAS3 backplanes.

3. Manufacturing Test Connector

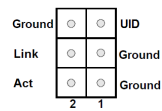
This connector is designated J3 and is for Supermicro manufacturing use only.

4. Manufacturer's USB Test Connector

This connector is designated FB1 and is for Supermicro manufacturing use only.

5. IPMI LAN LED Header

This connector is designated JP6 and is used to connect to the LED indicators on the chassis using cable CBL-NTWK-0584 or CBL-NTWK-0587.



6. IPMI LAN Connector

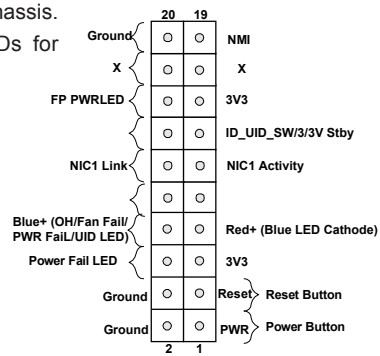
The Intelligent Platform Management Interface (IPMI) LAN connector is designated J8 and supports connectivity with a local network using cable CBL-NTWK-0584 or CBL-NTWK-0587.

7. SC847D SAS2 I²C Connectors

The backplane connectors are designated J4-J7 and allow the power board to be connected to up to four SC847D expanders.

8. Control Panel Connector

This connector is designated JF1 and connects to the control panel on the chassis. See Section 4-3 Control Panel LEDs for additional information



9. PMBus Connector

This connector is designated JPI2C1 and connects the power distributor to the Power Management Bus (PMBus).

10. Fan Connectors

The fan connectors supply power to the fans and are designated FAN1-FAN10.

11. ATX Power Connector

The ATX power connector is designated JPW1.

F-7 Connectors Jumpers and LED Indicators

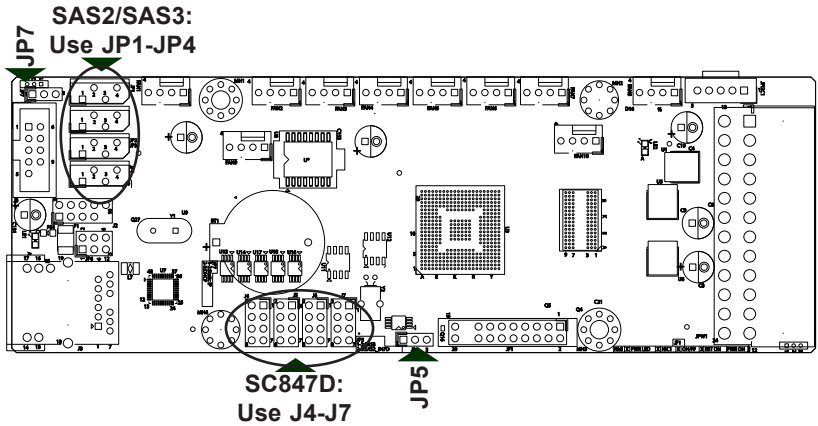


Figure F-2. CSE-PTJBOD-CB3 Connectors and Jumpers

Front SAS2/SAS3 and SC847D Jumpers	
Jumper	**Description**
JP7	Pins 1-2: IPMI factory mode, IP 192.168.1.99 Pins 2-3: User mode (static/DHCP)
JP5	Pins 1-2: SAS3 enabled Pins 2-3: SAS2 enabled and SC847D

When enabling SAS2/SAS3 functionality, use connectors JP1-JP4, and set the JP5 jumper to pins 1-2 (SAS3) or pins 3-4 (SAS2).

When an SC847D chassis is being used, use connectors J4-J7 and set the JP5 jumper to pins 2-3.

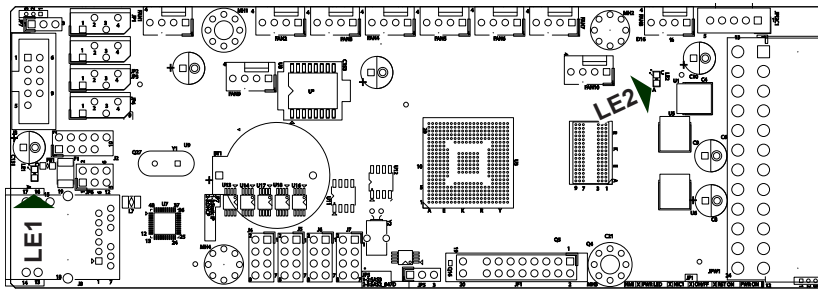


Figure F-3. CSE-PTJBOD-CB3 LED Indicators

LED Indicators	
LED	**Description**
LE1	Heartbeat LED: A blinking LED indicates BMC activity
LE2	Power LED: DC power indicator

F-8 SC847D JBOD Cabling

E16 I²C Cabling

Use the following diagram to connect the CSE-PTJBOD-CB3 to the front and rear backplanes in SC847D JBOD E16 model chassis.

Jumper Settings	
Jumper	**Setting**
JP5	Pins 1-2: SAS3 enabled Pins 2-3: SAS2 enabled and SC847

When enabling SAS2/SAS3 functionality, use connectors JP1-JP4, (see Page 2-4) and set the JP5 jumper to pins 1-2 (SAS3) or pins 3-4 (SAS2).

When an SC847D chassis is being used, use connectors J4-J7 (see Page 2-4) and set the JP5 jumper to pins 2-3.

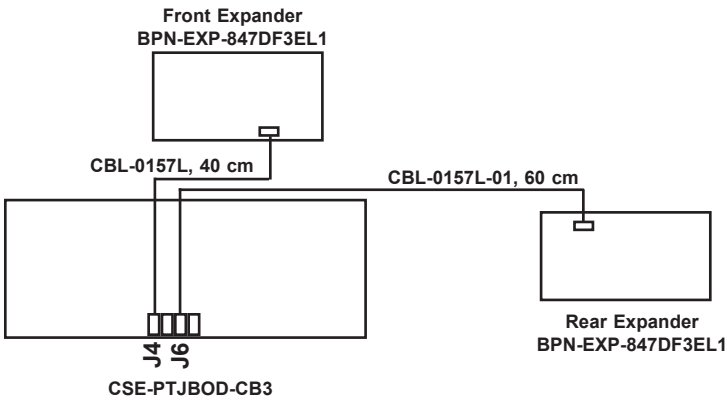


Figure F-4. E16 I²C Cabling

E26 I²C Cabling

Use the following diagram to connect the CSE-PTJBOD-CB3 to the front and rear backplanes in SC847D-JBOD-E26 model chassis.

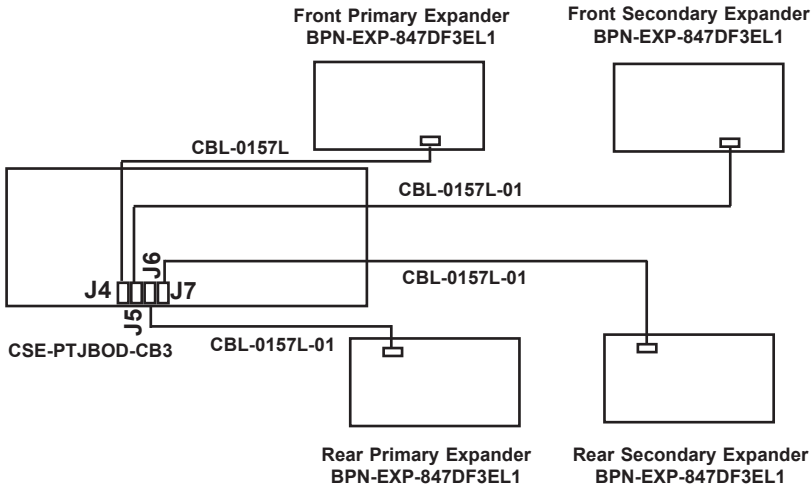


Figure F-5. E26 I²C Cabling

F-9 SC847 JBOD Cabling

SAS3 I²C Cabling in the SC847 JBOD Chassis

Use the diagram below to connect the CSE-PTJBOD-CB3 to the front and rear backplanes in the SC847 JBOD chassis.

Jumper Settings	
Jumper	**Setting**
JP5	Pins 1-2: SAS3 enabled Pins 2-3: SAS2 enabled and SC847D

When enabling SAS2/SAS3 functionality, use connectors JP1-JP4, (see Page 2-4) and set the JP5 jumper to pins 1-2 (SAS3) or pins 3-4 (SAS2).

When an SC847D chassis is being used, use connectors J4-J7 (see Page 2-4) and set the JP5 jumper to pins 2-3.

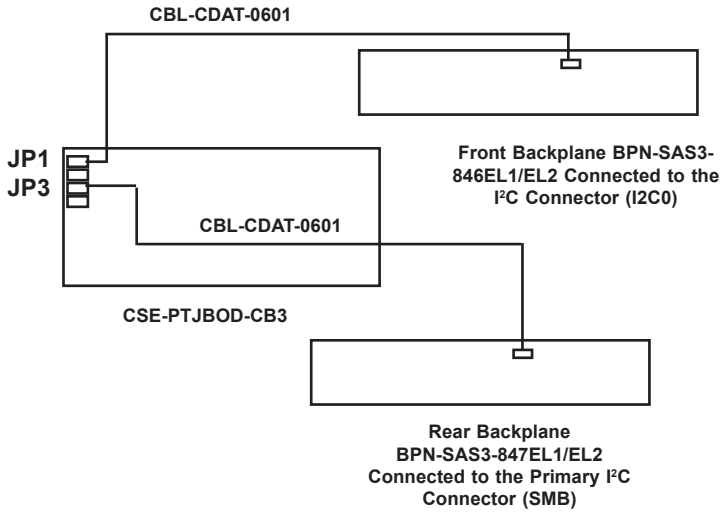


Figure F-6. SAS3 I²C Cabling in the SC847 JBOD Chassis

F-10 SC847 Cabling

SAS3 I²C Cabling in the SC847B Chassis

Use the diagram below to connect the I²C cabling. Ensure that the JP5 jumper on the CSE-PTJBOD-CB3 is cabled correctly according to the table below.

Jumper Settings	
Jumper	**Setting**
JP5	Pins 1-2: SAS3 setting (Default) Pins 2-3: SAS2 and SC847D setting

When enabling SAS2/SAS3 functionality, use the connectors on the upper left of the CSE-PTJBOD-CB3 power board (See Page 2-4) and set the JP5 jumper as shown in the chart above.

When an SC847D chassis is being used, use the connectors along the bottom edge fo the power board (See Page 2-4) and set the JP5 jumper as shown in the chart above.

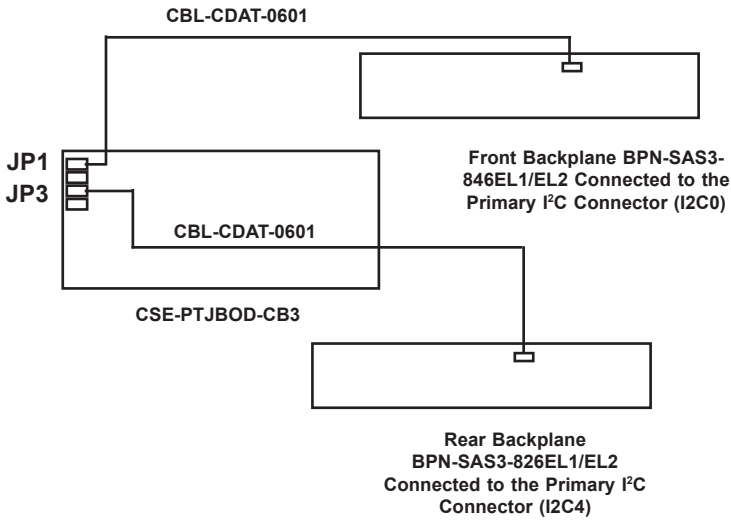


Figure F-7. SAS3 I²C Cabling in the SC847B Chassis

F-11 SC417B Cabling

SAS3 I²C Cabling in the SC417B Chassis

Use the diagram below to connect the I²C cabling. Ensure that the JP5 jumper on the CSE-PTJBOD-CB3 is cabled correctly according to the table below.

Jumper Settings	
Jumper	**Setting**
JP5	Pins 1-2: SAS3 setting (Default) Pins 2-3: SAS2 and SC847D setting

When enabling SAS2/SAS3 functionality, use the connectors on the upper left of the CSE-PTJBOD-CB3 power board (See Page 2-4) and set the JP5 jumper as shown in the chart above.

When an SC847D chassis is being used, use the connectors along the bottom edge fo the power board (See Page 2-4) and set the JP5 jumper as shown in the chart above.

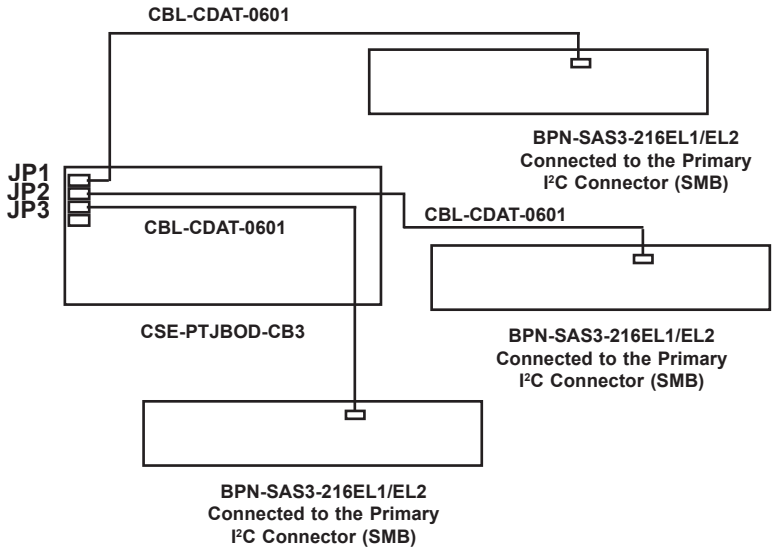


Figure F-8. SAS3 I²C Cabling in the SC417B Chassis

F-12 System Details Overview

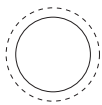
This chapter provides information on system components which are directly affected by the CSE-PTJBOD-CB3 power board. Topics covered are the control panel, power up and power down sequences and IPMI.

F-13 Control Panel

Control Panel Buttons

There are two push-buttons located on the left handle of the chassis. These are (in order from top to bottom) a power on/off button and a UID/IP combination reset button.

Power: The main power button 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.



UID: Press to toggle the UID function on and off. IPMI IP factory default: Press and hold for ten seconds.

F-14 Control Panel LEDs

The control panel is located on the left handle of the SC847DJ chassis and has five LEDs. These LEDs provide you with critical information related to different parts of the system. This section explains what each LED indicates when illuminated and any corrective action you may need to take.

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

NIC1: Indicates network activity on GLAN1 when flashing.

Information LED:

Informational LED	
Status	**Description**
Solid red	An overheat condition has occured. (This may be caused by cable congestion).
Blinking red (1Hz)	Fan failure, check for an inoperative fan.
Blinking red (0.25Hz)	Power failure, check for a non-operational power supply.
Solid blue	Local UID has been activated. Use this function to locate the server in a rack mount environment.
Blinking blue (300 msec)	Remote UID is on. Use this function to identify the server from a remote location.
Blinking blue (500 msec)	System is ready to power up. See Section 4-4 of this manual.

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

F-15 JBOD Power Up/Power Down Sequences

Power Up Sequences

First Use or Power Cord Plug-In

1. Plug the power cords into the rear of the power supplies
2. Wait until blue Information LED starts to blink
3. Press the power button once*
4. The CSE-PTJBOD-CB3 will initiate the power up sequence in three seconds

* If the CSE-PTJBOD-CB3 already has power, the user may power up the chassis without waiting for the Blue UID LED

After Normal Shutdown by IPMI or Power Button

1. Press the power button once
2. The CSE-PTJBOD-CB3 will initiate the power up sequence in three seconds

After a Power Loss

The system will power up automatically approximately fifteen seconds after the power returns

Power Down Sequence

1. Hold down the power button. The blue UID LED will begin blinking. Continue to hold the power button
2. Release power button after blue LED stops blinking and goes dark
3. The shutdown sequence will begin and shut down the system within ten seconds

F-16 CSE-PTJBOD-CB3 IPMI Static IP to DHCP Setting

IP Address to DHCP Setting

1. Download the utility from the Supermicro website or technical support
2. Extract the file to a known folder.
3. By default, the CSE-PTJBOD-CB3 will be configured in static IP 192.168.1.99
4. Change the host to static IP as 192.168.1.10
5. Go to the IPMI website and select the *Configuration* tab and then select the *Network* page
6. Change the setting from *Static* to *DHCP* mode
   If default website is not responding, press the reset button for more than ten seconds to reset to default. You will observe that the fan speed will slow and then return to normal. Continue to change to DHCP mode when the fan reaches normal speed
7. Save the new setting
8. Change the host IP back to DHCP mode
9. Determine the DHCP IP address of the host, for example 10.1.1.50
10. Run the command prompt with administrative privileges
11. Go to the utility folder and type in:
    findit 00-25-90-xx-xx-xx yy.zz.255.255
    Where: xx-xx-xx is, enter the CSE-PTJBOD-CB3 MAC ID. yy.zz represents the first two octets of your host IP.
    Example: findit 00-25-90-xx-xx-xx 10.1.255.255
12. The utility will return the IP address of the CSE-PTJBOD-CB3. Enter the IP in browser and access the IPMI web GUI

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