



Sun StorEdge™ network FC switch-8 and switch-16 Installation and Configuration Guide

Version 2.0–2.1

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Declaration of Conformity

Compliance Model Number: Compliance ID SAN-008
Product Name: Sun StorEdge network FC switch-16

EMC

European Union

This equipment complies with the following requirements of the EMC Directive 89/336/EEC:

EN55022:1998/CISPR22:1997		Class A
EN55024:1998	EN61000-4-2	4 kV (Direct), 8 kV (Air)
	EN61000-4-3	3 V/m
	EN61000-4-4	1.0 kV AC Power Lines, 0.5 kV Signal and DC Power Lines
	EN61000-4-5	1 kV AC Line-Line and Outdoor Signal Lines 2 kV AC Line-Gnd, 0.5 kV DC Power Lines
	EN61000-4-6	3 V
	EN61000-4-8	1 A/m
	EN61000-4-11	Pass
EN61000-3-2:1995 w/Amendments 1, 2		Pass
EN61000-3-3:1995		Pass

Safety

This equipment complies with the following requirements of the Low Voltage Directive 73/23/EEC:

EC Type Examination Certificates:

EN60950:1992, 2nd Edition, Amendments 1, 2, 3, 4, 11	TUV Rheinland Certificate No. AL 99-03-33778
IEC 950:1991, 2nd Edition, Amendments 1, 2, 3, 4	
Evaluated to all CB Countries	CB Scheme Certificate No. DE 3-5207

Supplementary Information

This product was tested and complies with all the requirements for the CE Mark.

/S/

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Safety Agency Compliance Statements

Read this section before beginning any procedure. The following text provides safety precautions to follow when installing a Sun Microsystems product.

Safety Precautions

For your protection, observe the following safety precautions when setting up your equipment:

- Follow all cautions and instructions marked on the equipment.
- Ensure that the voltage and frequency of your power source match the voltage and frequency inscribed on the equipment's electrical rating label.
- Never push objects of any kind through openings in the equipment. Dangerous voltages may be present. Conductive foreign objects could produce a short circuit that could cause fire, electric shock, or damage to your equipment.

Symbols

The following symbols may appear in this book:



Caution – There is risk of personal injury and equipment damage. Follow the instructions.



Caution – Hot surface. Avoid contact. Surfaces are hot and may cause personal injury if touched.



Caution – Hazardous voltages are present. To reduce the risk of electric shock and danger to personal health, follow the instructions.



On – Applies AC power to the system.

Depending on the type of power switch your device has, one of the following symbols may be used:



Off - Removes AC power from the system.



Standby – The On/Standby switch is in the standby position.

Modifications to Equipment

Do not make mechanical or electrical modifications to the equipment. Sun Microsystems is not responsible for regulatory compliance of a modified Sun product.

Placement of a Sun Product



Caution – Do not block or cover the openings of your Sun product. Never place a Sun product near a radiator or heat register. Failure to follow these guidelines can cause overheating and affect the reliability of your Sun product.



Caution – The workplace-dependent noise level defined in DIN 45 635 Part 1000 must be 70Db(A) or less.

SELV Compliance

Safety status of I/O connections comply to SELV requirements.

Power Cord Connection



Caution – Sun products are designed to work with single-phase power systems having a grounded neutral conductor. To reduce the risk of electric shock, do not plug Sun products into any other type of power system. Contact your facilities manager or a qualified electrician if you are not sure what type of power is supplied to your building.



Caution – Not all power cords have the same current ratings. Household extension cords do not have overload protection and are not meant for use with computer systems. Do not use household extension cords with your Sun product.



Caution – Your Sun product is shipped with a grounding type (three-wire) power cord. To reduce the risk of electric shock, always plug the cord into a grounded power outlet.

The following caution applies only to devices with a Standby power switch:



Caution – The power switch of this product functions as a standby type device only. The power cord serves as the primary disconnect device for the system. Be sure to plug the power cord into a grounded power outlet that is nearby the system and is readily accessible. Do not connect the power cord when the power supply has been removed from the system chassis.

Lithium Battery



Caution – On Sun CPU boards, there is a lithium battery molded into the real-time clock, SGS No. MK48T59Y, MK48TXXB-XX, MK48T18-XXXPCZ, M48T59W-XXXPCZ, or MK48T08. Batteries are not customer replaceable parts. They may explode if mishandled. Do not dispose of the battery in fire. Do not disassemble it or attempt to recharge it.

Battery Pack



Caution – There is a sealed lead acid battery in Sun StorEdge FC-AL Switch units. Portable Energy Products No. TLC02V50. There is danger of explosion if the battery pack is mishandled or incorrectly replaced. Replace only with the same type of Sun Microsystems battery pack. Do not disassemble it or attempt to recharge it outside the system. Do not dispose of the battery in fire. Dispose of the battery properly in accordance with local regulations.

System Unit Cover

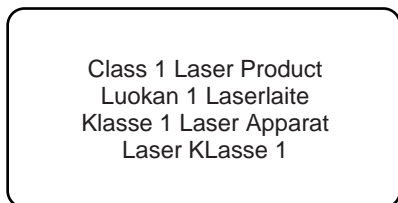
You must remove the cover of your Sun computer system unit to add cards, memory, or internal storage devices. Be sure to replace the top cover before powering on your computer system.



Caution – Do not operate Sun products without the top cover in place. Failure to take this precaution may result in personal injury and system damage.

Laser Compliance Notice

Sun products that use laser technology comply with Class 1 laser requirements.



CD-ROM



Caution – Use of controls, adjustments, or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

Einhaltung sicherheitsbehördlicher Vorschriften

Auf dieser Seite werden Sicherheitsrichtlinien beschrieben, die bei der Installation von Sun-Produkten zu beachten sind.

Sicherheitsvorkehrungen

Treffen Sie zu Ihrem eigenen Schutz die folgenden Sicherheitsvorkehrungen, wenn Sie Ihr Gerät installieren:

- Beachten Sie alle auf den Geräten angebrachten Warnhinweise und Anweisungen.
- Vergewissern Sie sich, daß Spannung und Frequenz Ihrer Stromquelle mit der Spannung und Frequenz übereinstimmen, die auf dem Etikett mit den elektrischen Nennwerten des Geräts angegeben sind.
- Stecken Sie auf keinen Fall irgendwelche Gegenstände in Öffnungen in den Geräten. Leitfähige Gegenstände könnten aufgrund der möglicherweise vorliegenden gefährlichen Spannungen einen Kurzschluß verursachen, der einen Brand, Stromschlag oder Geräteschaden herbeiführen kann.

Symbole

Die Symbole in diesem Handbuch haben folgende Bedeutung:



Achtung – Gefahr von Verletzung und Geräteschaden. Befolgen Sie die Anweisungen.



Achtung – Hohe Temperatur. Nicht berühren, da Verletzungsgefahr durch heiße Oberfläche besteht.



Achtung – Gefährliche Spannungen. Anweisungen befolgen, um Stromschläge und Verletzungen zu vermeiden.



Ein – Setzt das System unter Wechselstrom.

Je nach Netzschaltertyp an Ihrem Gerät kann eines der folgenden Symbole benutzt werden:



Aus – Unterbricht die Wechselstromzufuhr zum Gerät.



Wartezustand (Stand-by-Position) - Der Ein-/Wartezustand-Schalter steht auf Wartezustand. Änderungen an Sun-Geräten.

Nehmen Sie keine mechanischen oder elektrischen Änderungen an den Geräten vor. Sun Microsystems, übernimmt bei einem Sun-Produkt, das geändert wurde, keine Verantwortung für die Einhaltung behördlicher Vorschriften

Aufstellung von Sun-Geräten



Achtung – Um den zuverlässigen Betrieb Ihres Sun-Geräts zu gewährleisten und es vor Überhitzung zu schützen, dürfen die Öffnungen im Gerät nicht blockiert oder verdeckt werden. Sun-Produkte sollten niemals in der Nähe von Heizkörpern oder Heizluftklappen aufgestellt werden.



Achtung – Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70Db(A) oder weniger.

Einhaltung der SELV-Richtlinien

Die Sicherung der I/O-Verbindungen entspricht den Anforderungen der SELV-Spezifikation.

Anschluß des Netzkabels



Achtung – Sun-Produkte sind für den Betrieb an Einphasen-Stromnetzen mit geerdetem Nulleiter vorgesehen. Um die Stromschlaggefahr zu reduzieren, schließen Sie Sun-Produkte nicht an andere Stromquellen an. Ihr Betriebsleiter oder ein qualifizierter Elektriker kann Ihnen die Daten zur Stromversorgung in Ihrem Gebäude geben.



Achtung – Nicht alle Netzkabel haben die gleichen Nennwerte. Herkömmliche, im Haushalt verwendete Verlängerungskabel besitzen keinen Überlastungsschutz und sind daher für Computersysteme nicht geeignet.



Achtung – Ihr Sun-Gerät wird mit einem dreidadrigen Netzkabel für geerdete Netzsteckdosen geliefert. Um die Gefahr eines Stromschlags zu reduzieren, schließen Sie das Kabel nur an eine fachgerecht verlegte, geerdete Steckdose an.

Die folgende Warnung gilt nur für Geräte mit Wartezustand-Netzschalter:



Achtung – Der Ein/Aus-Schalter dieses Geräts schaltet nur auf Wartezustand (Stand-By-Modus). Um die Stromzufuhr zum Gerät vollständig zu unterbrechen, müssen Sie das Netzkabel von der Steckdose abziehen. Schließen Sie den Stecker des Netzkabels an eine in der Nähe befindliche, frei zugängliche, geerdete Netzsteckdose an. Schließen Sie das Netzkabel nicht an, wenn das Netzteil aus der Systemeinheit entfernt wurde.

Lithiumbatterie



Achtung – CPU-Karten von Sun verfügen über eine Echtzeituhr mit integrierter Lithiumbatterie (Teile-Nr. MK48T59Y, MK48TXXB-XX, MK48T18-XXXPCZ, M48T59W-XXXPCZ, oder MK48T08). Diese Batterie darf nur von einem qualifizierten Servicetechniker ausgewechselt werden, da sie bei falscher Handhabung explodieren kann. Werfen Sie die Batterie nicht ins Feuer. Versuchen Sie auf keinen Fall, die Batterie auszubauen oder wiederaufzuladen.

Batterien



Achtung – Die Geräte Sun StorEdge FC-AL Switch enthalten auslaufsichere Bleiakkumulatoren. Produkt-Nr. TLC02V50 für portable Stromversorgung. Werden bei der Behandlung oder beim Austausch der Batterie Fehler gemacht, besteht Explosionsgefahr. Batterie nur gegen Batterien gleichen Typs von Sun Microsystems austauschen. Nicht demontieren und nicht versuchen, die Batterie außerhalb des Geräts zu laden. Batterie nicht ins Feuer werfen. Ordnungsgemäß entsprechend den vor Ort geltenden Vorschriften entsorgen.

Gehäuseabdeckung

Sie müssen die obere Abdeckung Ihres Sun-Systems entfernen, um interne Komponenten wie Karten, Speicherchips oder Massenspeicher hinzuzufügen. Bringen Sie die obere Gehäuseabdeckung wieder an, bevor Sie Ihr System einschalten.



Achtung – Bei Betrieb des Systems ohne obere Abdeckung besteht die Gefahr von Stromschlag und Systemschäden.

Einhaltung der Richtlinien für Laser

Sun-Produkte, die mit Laser-Technologie arbeiten, entsprechen den Anforderungen der Laser Klasse 1.

Class 1 Laser Product
Luokan 1 Laserlaite
Klasse 1 Laser Apparat
Laser Klasse 1

CD-ROM



Warnung – Die Verwendung von anderen Steuerungen und Einstellungen oder die Durchführung von Prozeduren, die von den hier beschriebenen abweichen, können gefährliche Strahlungen zur Folge haben.

Conformité aux normes de sécurité

Ce texte traite des mesures de sécurité qu'il convient de prendre pour l'installation d'un produit Sun Microsystems.

Mesures de sécurité

Pour votre protection, veuillez prendre les précautions suivantes pendant l'installation du matériel :

- Suivre tous les avertissements et toutes les instructions inscrites sur le matériel.
- Vérifier que la tension et la fréquence de la source d'alimentation électrique correspondent à la tension et à la fréquence indiquées sur l'étiquette de classification de l'appareil.

- Ne jamais introduire d'objets quels qu'ils soient dans une des ouvertures de l'appareil. Vous pourriez vous trouver en présence de hautes tensions dangereuses. Tout objet conducteur introduit de la sorte pourrait produire un court-circuit qui entraînerait des flammes, des risques d'électrocution ou des dégâts matériels.

Symboles

Vous trouverez ci-dessous la signification des différents symboles utilisés :



Attention: – risques de blessures corporelles et de dégâts matériels. Veuillez suivre les instructions.



Attention: – surface à température élevée. Évitez le contact. La température des surfaces est élevée et leur contact peut provoquer des blessures corporelles.



Attention: – présence de tensions dangereuses. Pour éviter les risques d'électrocution et de danger pour la santé physique, veuillez suivre les instructions.



MARCHE – Votre système est sous tension (courant alternatif).

Un des symboles suivants sera peut-être utilisé en fonction du type d'interrupteur de votre système:



ARRET - Votre système est hors tension (courant alternatif).



VEILLEUSE – L'interrupteur Marche/ Veilleuse est en position « Veilleuse ».

Modification du matériel

Ne pas apporter de modification mécanique ou électrique au matériel. Sun Microsystems n'est pas responsable de la conformité réglementaire d'un produit Sun qui a été modifié.

Positionnement d'un produit Sun



Attention: – pour assurer le bon fonctionnement de votre produit Sun et pour l'empêcher de surchauffer, il convient de ne pas obstruer ni recouvrir les ouvertures prévues dans l'appareil. Un produit Sun ne doit jamais être placé à proximité d'un radiateur ou d'une source de chaleur.



Attention: – Le niveau de pression acoustique au poste de travail s'élève selon la norme DIN 45 635 section 1000, à 70 dB (A) ou moins.

Conformité SELV

Sécurité : les raccordements E/S sont conformes aux normes SELV.

Connexion du cordon d'alimentation.



Attention: – les produits Sun sont conçus pour fonctionner avec des alimentations monophasées munies d'un conducteur neutre mis à la terre. Pour écarter les risques d'électrocution, ne pas brancher de produit Sun dans un autre type d'alimentation secteur. En cas de doute quant au type d'alimentation électrique du local, veuillez vous adresser au directeur de l'exploitation ou à un électricien qualifié.



Attention: – tous les cordons d'alimentation n'ont pas forcément la même puissance nominale en matière de courant. Les rallonges d'usage domestique n'offrent pas de protection contre les surcharges et ne sont pas prévues pour les systèmes d'ordinateurs. Ne pas utiliser de rallonge d'usage domestique avec votre produit Sun.



Attention: – votre produit Sun a été livré équipé d'un cordon d'alimentation à trois fils (avec prise de terre). Pour écarter tout risque d'électrocution, branchez toujours ce cordon dans une prise mise à la terre.

L'avertissement suivant s'applique uniquement aux systèmes équipés d'un interrupteur VEILLEUSE:



Attention: – le commutateur d'alimentation de ce produit fonctionne comme un dispositif de mise en veille uniquement. C'est la prise d'alimentation qui sert à mettre le produit hors tension. Veillez donc à installer le produit à proximité d'une prise murale facilement accessible. Ne connectez pas la prise d'alimentation lorsque le châssis du système n'est plus alimenté.

Batterie au lithium



Attention: – sur les cartes CPU Sun, une batterie au lithium (référence MK48T59Y, MK48TXXB-XX, MK48T18-XXXPCZ, M48T59W-XXXPCZ, ou MK48T08.) a été moulée dans l'horloge temps réel SGS. Les batteries ne sont pas des pièces remplaçables par le client. Elles risquent d'exploser en cas de mauvais traitement. Ne pas jeter la batterie au feu. Ne pas la démonter ni tenter de la recharger.

Bloc-batterie



Attention: – Les unités Sun StorEdge FC-AL Switch contiennent une batterie étanche au plomb (produits énergétiques portatifs n°TLC02V50). Il existe un risque d'explosion si ce bloc-batterie est manipulé de façon erronée ou mal mis en place. Ne remplacez ce bloc que par un bloc-batterie Sun Microsystems du même type. Ne le démontez pas et n'essayez pas de le recharger hors du système. Ne faites pas brûler la batterie mais mettez-la au rebut conformément aux réglementations locales en vigueur.

Couvercle

Pour ajouter des cartes, de la mémoire, ou des unités de stockage internes, vous devrez démonter le couvercle de l'unité système Sun. Ne pas oublier de remettre ce couvercle en place avant de mettre le système sous tension.



Attention: – il est dangereux de faire fonctionner un produit Sun sans le couvercle en place. Si l'on néglige cette précaution, on encourt des risques de blessures corporelles et de dégâts matériels.

Conformité aux certifications Laser

Les produits Sun qui font appel aux technologies lasers sont conformes aux normes de la classe 1 en la matière.

Class 1 Laser Product
Luokan 1 Laserlaite
Klasse 1 Laser Apparat
Laser Klasse 1

CD-ROM



Attention: – L'utilisation de contrôles, de réglages ou de performances de procédures autre que celle spécifiée dans le présent document peut provoquer une exposition à des radiations dangereuses.

Normativas de seguridad

El siguiente texto incluye las medidas de seguridad que se deben seguir cuando se instale algún producto de Sun Microsystems.

Precauciones de seguridad

Para su protección observe las siguientes medidas de seguridad cuando manipule su equipo:

- Siga todas las avisos e instrucciones marcados en el equipo.
- Asegúrese de que el voltaje y la frecuencia de la red eléctrica concuerdan con las descritas en las etiquetas de especificaciones eléctricas del equipo.
- No introduzca nunca objetos de ningún tipo a través de los orificios del equipo. Pueden haber voltajes peligrosos. Los objetos extraños conductores de la electricidad pueden producir cortocircuitos que provoquen un incendio, descargas eléctricas o daños en el equipo.

Símbolos

En este libro aparecen los siguientes símbolos:



Precaución – Existe el riesgo de lesiones personales y daños al equipo. Siga las instrucciones.



Precaución – Superficie caliente. Evite el contacto. Las superficies están calientes y pueden causar daños personales si se tocan.



Precaución – Voltaje peligroso presente. Para reducir el riesgo de descarga y daños para la salud siga las instrucciones.



Encendido – Aplica la alimentación de CA al sistema.

Según el tipo de interruptor de encendido que su equipo tenga, es posible que se utilice uno de los siguientes símbolos:



Apagado - Elimina la alimentación de CA del sistema.



En espera – El interruptor de Encendido/En espera se ha colocado en la posición de En espera.

Modificaciones en el equipo

No realice modificaciones de tipo mecánico o eléctrico en el equipo. Sun Microsystems no se hace responsable del cumplimiento de las normativas de seguridad en los equipos Sun modificados.

Ubicación de un producto Sun



Precaución – Para asegurar la fiabilidad de funcionamiento de su producto Sun y para protegerlo de sobrecalentamientos no deben obstruirse o taparse las rejillas del equipo. Los productos Sun nunca deben situarse cerca de radiadores o de fuentes de calor.



Precaución – De acuerdo con la norma DIN 45 635, Parte 1000, se admite un nivel de presión acústica para puestos de trabajo máximo de 70Db(A).

Cumplimiento de la normativa SELV

El estado de la seguridad de las conexiones de entrada/salida cumple los requisitos de la normativa SELV.

Conexión del cable de alimentación eléctrica



Precaución – Los productos Sun están diseñados para trabajar en una red eléctrica monofásica con toma de tierra. Para reducir el riesgo de descarga eléctrica, no conecte los productos Sun a otro tipo de sistema de alimentación eléctrica. Póngase en contacto con el responsable de mantenimiento o con un electricista cualificado si no está seguro del sistema de alimentación eléctrica del que se dispone en su edificio.



Precaución – No todos los cables de alimentación eléctrica tienen la misma capacidad. Los cables de tipo doméstico no están provistos de protecciones contra sobrecargas y por tanto no son apropiados para su uso con computadores. No utilice alargadores de tipo doméstico para conectar sus productos Sun.



Precaución – Con el producto Sun se proporciona un cable de alimentación con toma de tierra. Para reducir el riesgo de descargas eléctricas conéctelo siempre a un enchufe con toma de tierra.

La siguiente advertencia se aplica solamente a equipos con un interruptor de encendido que tenga una posición "En espera":



Precaución – El interruptor de encendido de este producto funciona exclusivamente como un dispositivo de puesta en espera. El enchufe de la fuente de alimentación está diseñado para ser el elemento primario de desconexión del equipo. El equipo debe instalarse cerca del enchufe de forma que este último pueda ser fácil y rápidamente accesible. No conecte el cable de alimentación cuando se ha retirado la fuente de alimentación del chasis del sistema.

Batería de litio



Precaución – En las placas de CPU Sun hay una batería de litio insertada en el reloj de tiempo real, tipo SGS Núm. MK48T59Y, MK48TXXB-XX, MK48T18-XXXPCZ, M48T59W-XXXPCZ, o MK48T08. Las baterías no son elementos reemplazables por el propio cliente. Pueden explotar si se manipulan de forma errónea. No arroje las baterías al fuego. No las abra o intente recargarlas.

Paquete de pilas



Precaución – Las unidades Sun StorEdge FC-AL Switch contienen una pila de plomo sellada, Productos de energía portátil n° TLC02V50. Existe riesgo de estallido si el paquete de pilas se maneja sin cuidado o se sustituye de manera indebida. Las pilas sólo deben sustituirse por el mismo tipo de paquete de pilas de Sun Microsystems. No las desmonte ni intente recargarlas fuera del sistema. No arroje las pilas al fuego. Deséchelas siguiendo el método indicado por las disposiciones vigentes.

Tapa de la unidad del sistema

Debe quitar la tapa del sistema cuando sea necesario añadir tarjetas, memoria o dispositivos de almacenamiento internos. Asegúrese de cerrar la tapa superior antes de volver a encender el equipo.



Precaución – Es peligroso hacer funcionar los productos Sun sin la tapa superior colocada. El hecho de no tener en cuenta esta precaución puede ocasionar daños personales o perjudicar el funcionamiento del equipo.

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Los productos Sun que utilizan la tecnología de láser cumplen con los requisitos de láser de Clase 1.

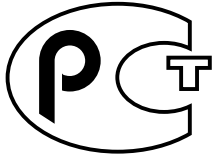
Class 1 Laser Product
Luokan 1 Laserlaite
Klasse 1 Laser Apparat
Laser Klasse 1

CD-ROM



Precaución – El manejo de los controles, los ajustes o la ejecución de procedimientos distintos a los aquí especificados pueden exponer al usuario a radiaciones peligrosas.

GOST-R Certification Mark



Nordic Lithium Battery Cautions

Norge



ADVARSEL - Litiumbatteri —
Ekspløsjonsfare. Ved utskifting benyttes kun
batteri som anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

Sverige



VARNING - Explosionsfara vid felaktigt
batteribyte. Använd samma batterityp eller
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apparatillverkaren. Kassera använt batteri
enligt fabrikantens instruktion.

Danmark



ADVARSEL! - Litiumbatteri —
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- Federal Communications Commission (FCC) — USA
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Please read the appropriate section that corresponds to the marking on your Sun product before attempting to install the product.

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Shielded Cables: Connections between the workstation and peripherals must be made using shielded cables to comply with FCC radio frequency emission limits. Networking connections can be made using unshielded twisted-pair (UTP) cables.

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2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Shielded Cables: Connections between the workstation and peripherals must be made using shielded cables in order to maintain compliance with FCC radio frequency emission limits. Networking connections can be made using unshielded twisted pair (UTP) cables.

Modifications: Any modifications made to this device that are not approved by Sun Microsystems, Inc. may void the authority granted to the user by the FCC to operate this equipment.

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This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

ICES-003 Class B Notice - Avis NMB-003, Classe B

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.


VCCI 基準について

クラス A VCCI 基準について

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警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

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Preface

The *Sun StorEdge network FC switch-8 and switch-16 Installation and Configuration Guide* describes how to set up the Sun StorEdge network FC switch-8 and switch -16 hardware and configure it to the network. It provides information and pointers to additional documentation you may need for configuring, troubleshooting, and using the switch. The book is intended for technical users who have experience with storage systems.

Using UNIX Commands

This document may not contain information on basic UNIX[®] commands and procedures such as shutting down the system, booting the system, and configuring devices.

See one or more of the following for this information:

- *Solaris Handbook for Sun Peripherals*
- AnswerBook2[™] online documentation for the Solaris[™] operating environment
- Other software documentation that you received with your system

Typographic Conventions

Typeface	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with on-screen computer output	% su Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this.
	Command-line variable; replace with a real name or value	To delete a file, type <code>rm filename</code> .

Shell Prompts

Shell	Prompt
C shell	<i>machine_name</i> %
C shell superuser	<i>machine_name</i> #
Bourne shell and Korn shell	\$
Bourne shell and Korn shell superuser	#

Related Documentation

Application	Title	Part Number
Installer/User's information	<i>Sun SANbox-8 Fibre Channel Switch Installer's/User's Manual</i>	875-1881-10
GUI and User	<i>SANbox Segmented Loop Switch User's Manual</i>	875-3059-10
Installer/User	<i>SANbox 8/16 Segmented Loop Switch Management User's Manual</i>	875-3060-10
Troubleshooting	<i>Sun StorEdge network FC switch-8 and switch-16 Troubleshooting Guide</i>	806-6923-10
Late news	<i>Sun StorEdge network FC switch-8 and switch-16 Release Notes</i>	806-6924-10
Software	<i>CDInsert</i>	804-7491-10
Late news	<i>Sun StorEdge A5000 Product Notes</i>	805-1018-13
Late news	<i>Sun StorEdge T3 Disk Tray Release Notes</i>	806-1497-12
Late news - Best Practices	<i>Sun StorEdge A3x00/A3500 FC Best Practices Guide</i>	806-6419-10
Late news	<i>Sun StorEdge A3500FC Release Notes¹</i>	805-7758-11
Hub information	<i>Sun StorEdge FC-100 Hub Installation and Service Manual</i>	805-0315-12

1. Check for the latest updates at <http://sunsolve.sun.com>. Also check <http://www.sun.com/products-n-solutions/hardware/docs>

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Installation Overview

This chapter contains an overview of the tasks required for installing the Sun StorEdge network FC switch-8 and switch-16 switch and provides references to the documentation for configuring and using the switch.

Overview

The following provides the major steps for installing either the 8-port or 16-port switch hardware and software.

- 1. Confirm the switch firmware and GUI revision level for your switch.**
Instructions are provided in the Release Notes
- 2. Select the area for the expansion cabinet onto which you plan to install the switch.**
Be sure to allow for the minimum airflow, temperature, and power restrictions. See the *Sun Switch Management Installer's/User's Manual* for instructions.
- 3. Verify the configuration for your system.**
Supported configurations are detailed in Chapter 2, "Configuration."
- 4. Install the GBICs.**
See the *Sun Switch Management Installer's/User's Manual* for the 8-port switch, or the *SANbox Segmented Loop Switch User's Manual* for instructions.
- 5. Install the vent panel.**
See "Installing the Vent Panel" on page 24.
- 6. Connect the cables and power cords.**
See Chapter 2, "Configuration" for configuration information.
See also "Installing, Connecting, and Routing the Cables" on page 26.

7. Configure the switch for the network.

See Chapter 4, “Switch Activation,” for information on configuring the switch to the network.

8. Install the SANSurfer 2.0 application.

See “Installing the Sun StorEdge Network FC Switch 2.0 GUI” on page 36 for information on installing the GUI application.

Configurations

Supported Hardware Configurations

Each switch is connected to the host through a fiber optic cable to a Sun StorEdge PCI Dual Fibre Channel Network Adapter. The other end of the switch is connected to storage devices through a fiber optic cable.

TABLE 1 lists supported hardware, including part numbers and a brief description of each item.

Note – The maximum length supported for a fibre optic cable is 500m.

TABLE 2-1 Supported Hardware

Part Number	Description
540-4026	A3500FC FC-AL controller for A3500 array (with D1000 tray)
540-4027	A3500FC FC-AL controller for A3000 array (with RSM tray)
	A5200 Array
	T3 Array
X6726A	StorEdge PCI Dual Fibre Channel Network Adapter
X6731A	GBIC Gigabit Interface Converter for the SBus FC-100 Host Adapter

TABLE 2-1 Supported Hardware

Part Number	Description
X978A	15m fiber optic cable
X6746A	Sun StorEdge FC switch-8 Switch
SG-XSW16-32P	Sun StorEdge network FC switch-16 Switch

Guidelines for Configuration

- Hosts
 - Sun Enterprise™ 220, 250, 420, and 450
 - Sun Enterprise 3x00 through Enterprise 6x00
 - Sun Enterprise 10000
- Arrays
 - Sun StorEdge A5200 array
 - Sun StorEdge T3 array
 - Sun StorEdge A3500FC array
- Switches
 - For High Availability Applications, configure two switches in parallel.
- Zones
 - A maximum of four storage arrays per zone is possible with the Sun StorEdge A3500FC Array.
 - A maximum of three storage arrays per zone is possible with the Sun StorEdge A5200 Array.
 - A maximum of four devices per zone is possible with the Sun StorEdge T3 Array.
 - Do not mix different arrays in the same zone. A single zone can contain only A3500FC arrays, or A5200 arrays, or T3 arrays.
 - A minimum of 2 ports per zone
For example, a 16-port switch can have a maximum of 8 zones
 - For the maximum arrays and initiators per zone, see TABLE 2-2.
 - All hosts connected to a zone must be of the same processor family—for example, Enterprise 10000, or Enterprise 3x00-6x00, or Enterprise 220, 250, 420,450.

- You can dynamically add storage to a zone using `luxadm` procedures for the Sun StorEdge A5200 and T3 arrays.
- Do not dynamically remove storage.

TABLE 2-2 Arrays, Zones, and Initiators

Array	Maximum Arrays/Zone	Maximum Initiators/Zone
A3500FC	4	2
A5200	3	2 initiators per loop, or a maximum of four per array i
T3	4	2

TABLE 2-3 Dynamic Addition to a Zone

Array	ADD First / Additional
A3500FC	No / Yes
A5200	Yes / Yes
T3	Yes / Yes

Single Host Connected to One Controller

FIGURE 2-1 shows one host connected through fiber-optic cables to one Sun StorEdge A3500FC controller module, using switches. Each controller module has two Fibre Channel ports.

FIGURE 2-2 shows one host connected through fiber-optic cables to one Sun StorEdge A5200 controller module, using switches. Each controller module has two Fibre Channel ports.

FIGURE 2-3 shows one host connected through fiber-optic cables to one Sun StorEdge T3 partner pair, using switches.

Note – No other type of Fibre Channel storage should share the same zone connected to the Sun StorEdge A3500FC controller module.

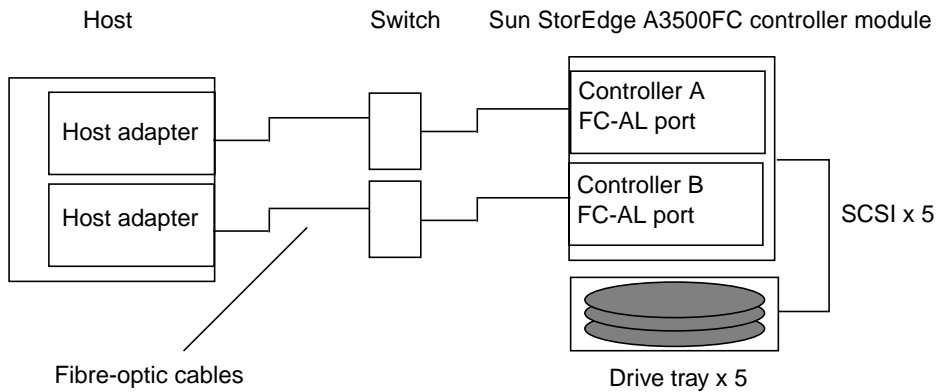


FIGURE 2-1 Example: Single Host Connected to One Sun StorEdge A3500FC Controller Module, Using Switches

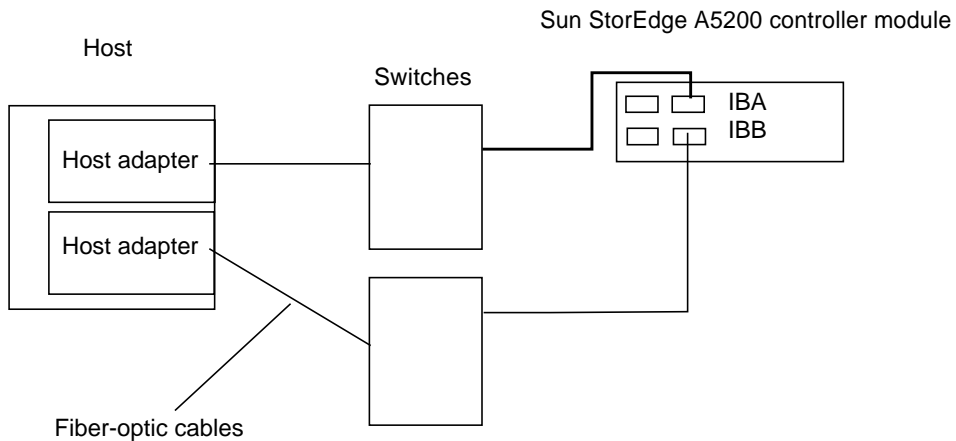


FIGURE 2-2 Example: Single Host Connected to One Sun StorEdge A5200 Controller Module, Using Switches

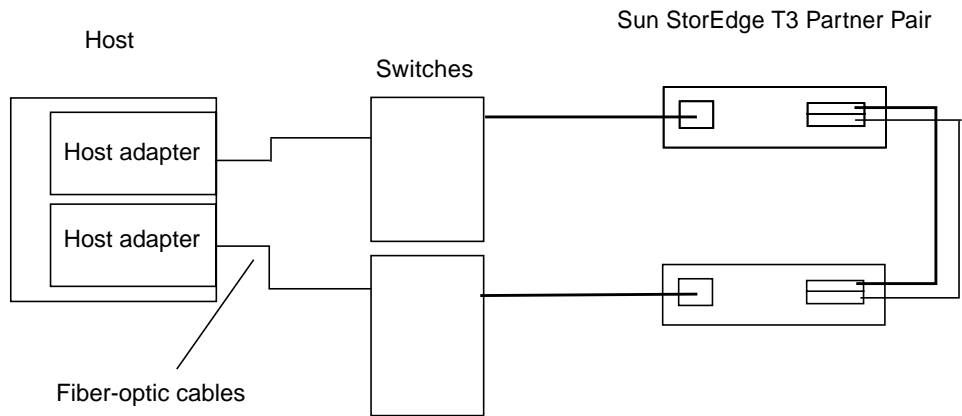


FIGURE 2-3 Example: Single Host Connected to One Sun StorEdge T3 Partner Pair Using Switches

Single Host Connected to Multiple Controller Modules, Using Switches

FIGURE 2-4 shows one host connected through fiber-optic cables to as many as four StorEdge A3500FC controller modules, using switches. You can connect controller modules in the same or separate cabinets.

Note – Different storage types can be attached on one switch, as long as they are on different zones.

Each controller that is connected to a switch must have a unique loop ID. Whenever you add a second controller to a switch, make sure that the loop ID of the controller being connected is different from the loop ID of any other controller currently connected to the same switch.

See “Setting the Loop ID” on page 15 for instructions about setting the loop ID of a controller.



Caution – Be sure that the controller module of the A3500 FC array is split between two switches. For example, connect controller A to switch 1 and controller B to switch 2.

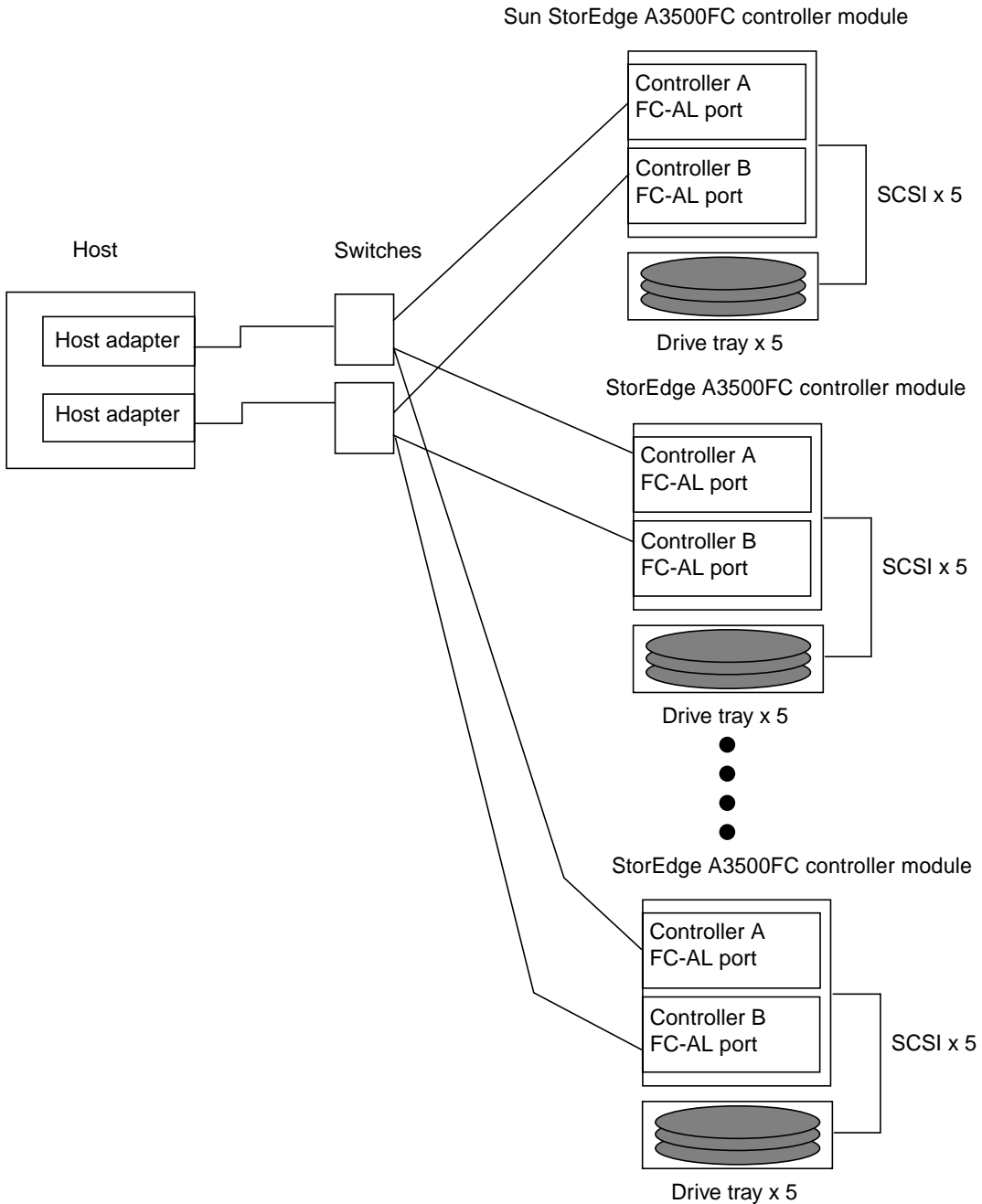


FIGURE 2-4 Example: Single Host Connected to Multiple A3500FC Controller Modules, Using Switches

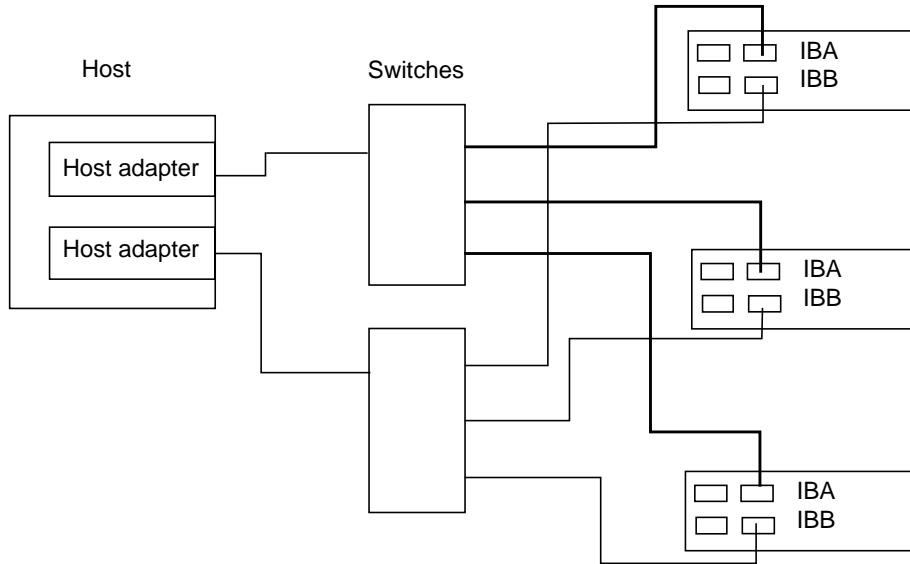


FIGURE 2-5 Example: Single Host Connected to Multiple A5200 Controller Modules, Using switches

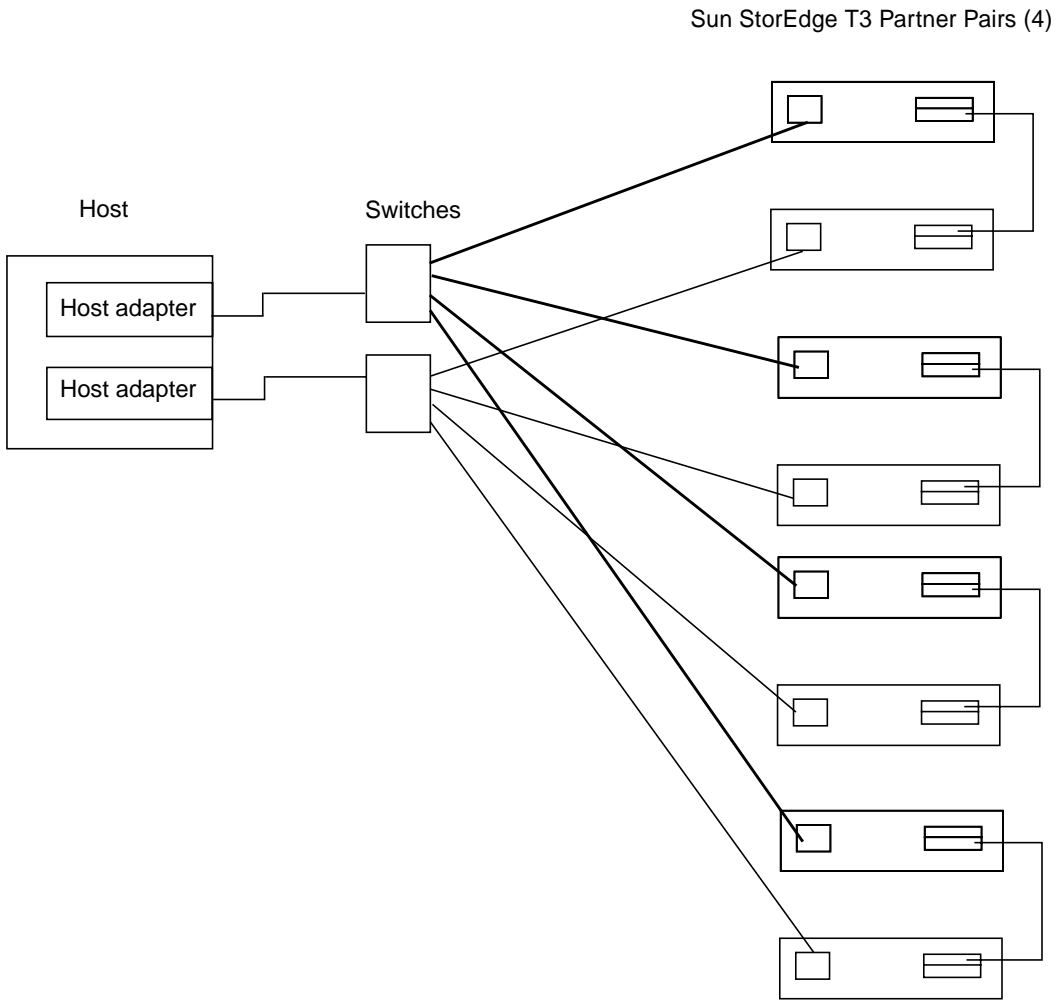


FIGURE 2-6 Example: Single Host Connected to Multiple StorEdge T3 Partner Pairs, Using Switches

Multi-Host

FIGURE 2-7 shows an example of a multi-host configuration: two hosts connected through fiber-optic cables to two Sun StorEdge A3500FC controller modules, using switches.

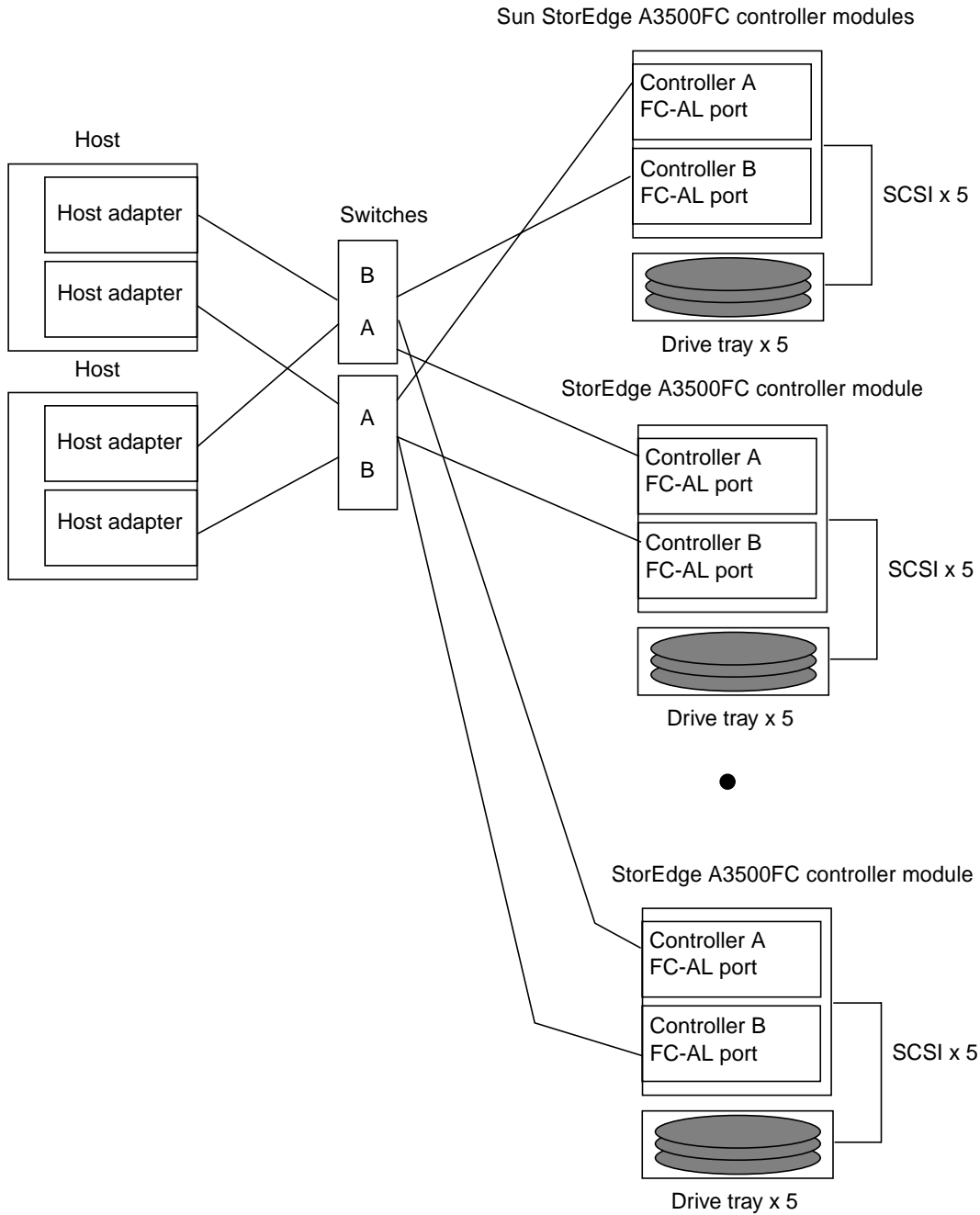


FIGURE 2-7 Two Hosts Connected to a Maximum of Four A3500FC Controller Modules, Using Switches

Note – Different storage types may be attached on one switch so long as they are on different zones.

Each controller that is connected to a switch must have a unique loop ID. Whenever you add a second controller to a switch, make sure that the loop ID of the controller being connected is different from the loop ID of any other controller currently connected to the same switch.

Refer to “Setting the Loop ID” on page 15 for instructions on setting the loop ID of a controller.



Caution – Ensure that the controller modules are not connected to the same switch.

Caution – All hosts on a zone must be of the same processor family. See “Guidelines for Configuration” on page 4.

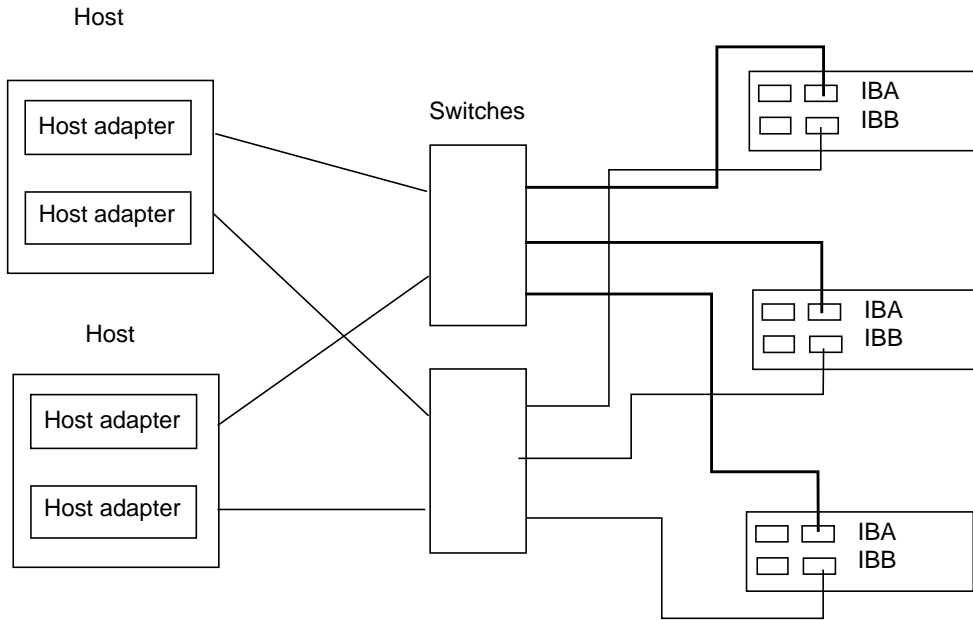


FIGURE 2-8 Example: Two Hosts Connected to Three StorEdge A5200 Controller Modules, Using Switches

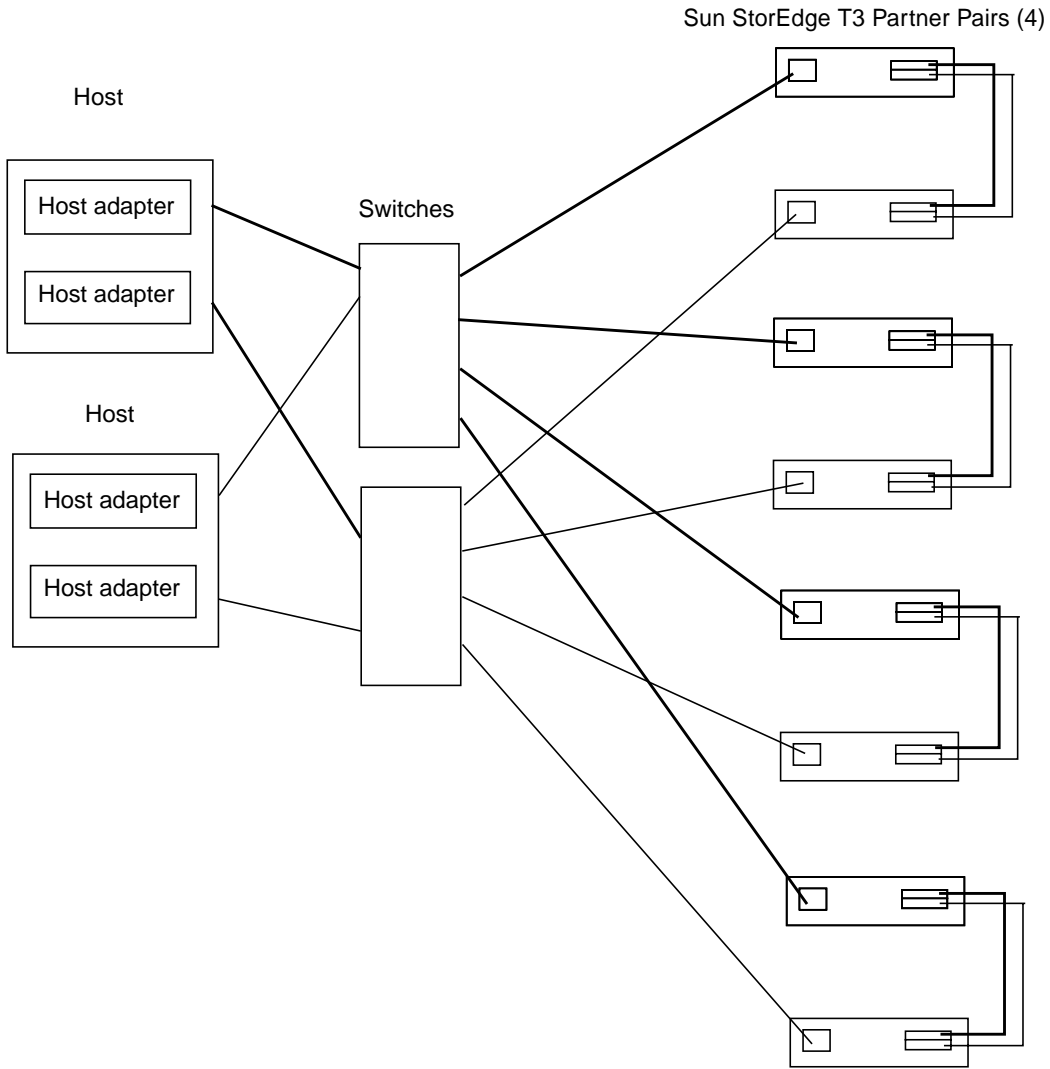


FIGURE 2-9 Example: Two Hosts Connected to Four StorEdge T3 Partner Pairs, Using Switches

Setting the Loop ID

Setting the loop ID of the Sun StorEdge A3500 FC controller is different from the procedure for the Sun StorEdge A5200 array and for the Sun StorEdge T3 array.

▼ To Set the Loop ID of a Sun StorEdge A3500 FC Controller

This section explains how to set the loop ID of a Sun StorEdge A3500 FC controller that is connected to a switch.

Tools and equipment needed:

- Needle-nose pliers
- Jumpers (supplied with the StorEdge A3500/A3500FC unit)
- Antistatic wrist strap

Every device attached to a SCSI or FC-AL bus must have a unique controller module ID number in order to communicate. The factory default ID settings for controller A and B are ID 5 and ID 4, respectively.



Caution – Do not configure more than four controller modules on the same loop.

1. Locate the 16 pins on the rear of the FC-AL controller module (FIGURE 2-10).

The eight pins on the right determine the host ID for controller 1 (A); the pins on the left determine the ID for controller 2 (B).

2. Wearing the antistatic wrist strap, install jumpers on the pins, as shown in FIGURE 2-10.

If necessary, use the needlenose pliers to remove the jumpers.

▼ To Verify the Loop ID of the Sun StorEdge A5200 and T3 Arrays

- **Be sure each array on a single loop has a unique target ID.**

If two Sun StorEdge T3 arrays have the same target ID on the same FC-AL loop, the software does not recognize their presence.

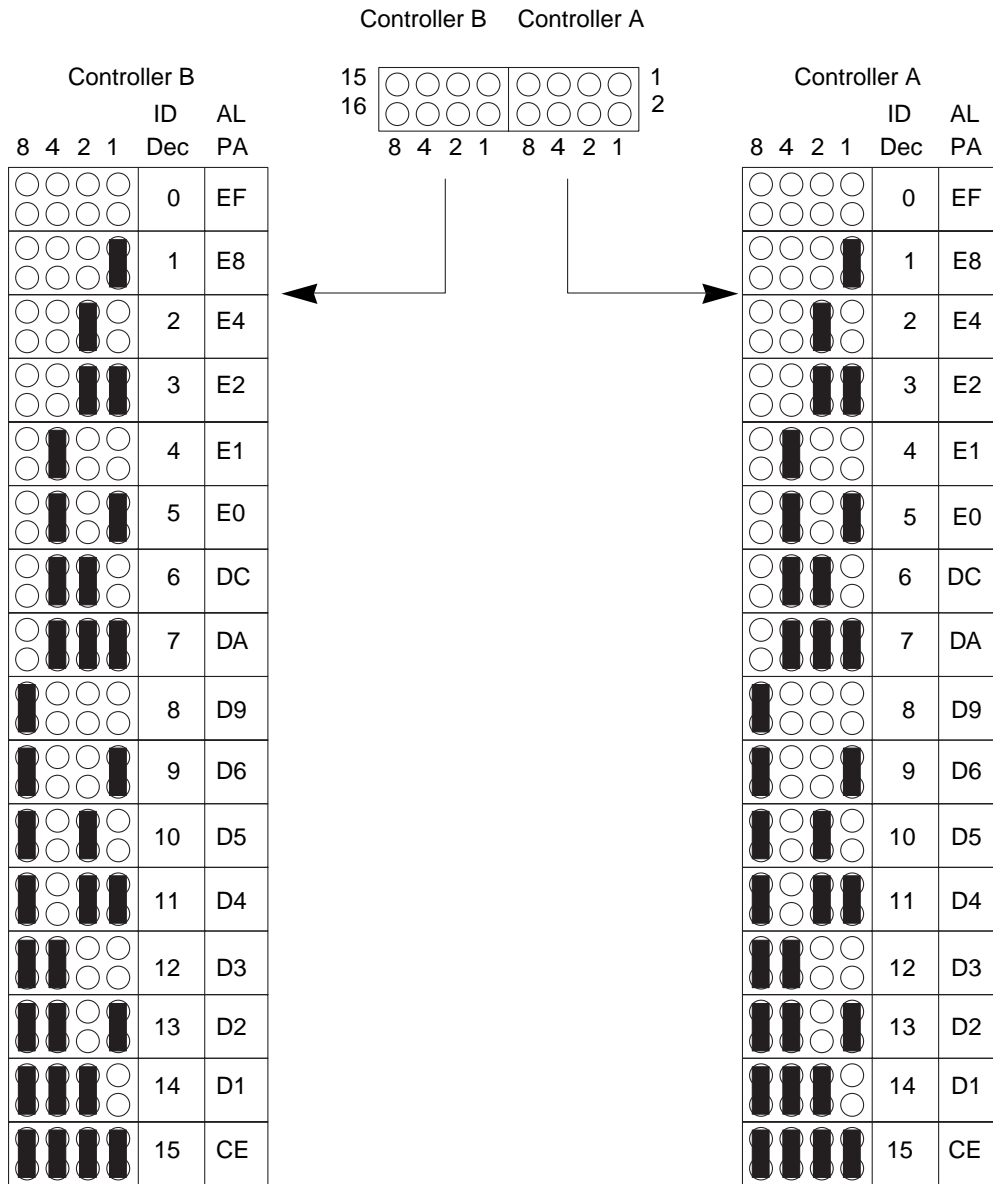


FIGURE 2-10 Controller Module FC-AL ID Settings

Hardware Installation

This chapter describes the procedures for installing the mounting rails for the 8-port switch and the mounting rails for the 16-port switch. It describes the procedures for installing and cabling the switches with one or more Sun StorEdge A3500 FC Arrays, one or more Sun StorEdge A5200 Arrays, or one or more Sun StorEdge T3 Disk Trays. It describes the procedure for installing the vent panel.

The differences between the 8-port and the 16-port switches are principally those in capacity and in the number and kinds of arrays you can connect. Either switch functions with the Sun StorEdge A3500 FC Array, a Sun StorEdge A5200 Array, or a Sun StorEdge T3 array. See Chapter 2, “Configuration,” for valid configurations.

Some characteristics of the Sun StorEdge network FC switch-8 switch:

- You can install 22 Sun StorEdge network FC switch-8 switches in a Sun StorEdge Expansion Cabinet.
- You can install four Sun StorEdge network FC switch-8 switches per zone with a Sun StorEdge A3500 FC Array configuration: a Sun StorEdge A3500 array and five Sun StorEdge D1000 trays.
- You can connect up to three Sun StorEdge A5200 Arrays per zone, or up to four Sun StorEdge T3 Disk Trays per zone. See Chapter 2 “Configurations.”

Some characteristics of the Sun StorEdge network FC switch-16 switch:

- You can install 18 Sun StorEdge network FC switch-16 switches in a Sun StorEdge Expansion Cabinet, or four per zone with a Sun StorEdge A3500 FC Array configuration, consisting of a Sun StorEdge A3500 array and five Sun StorEdge D1000 trays, or three per zone with a Sun StorEdge A5200 Array, or four per zone with a Sun StorEdge T3 array. See Chapter 2 “Configurations.”

Refer to the *Rackmount Placement Matrix*, available on docs.sun.com for hole positions in an expansion cabinet. If you have a hub previously installed in your expansion cabinet, you must remove it and the mounting tray prior to installing the switch and mounting rails. Refer to the hub removal instructions in the *Sun StorEdge FC-100 Hub Installation and Service Manual*, which is packaged with the hub.

Installing the Mounting Rails

The 8-port switch comes with a set of mounting rails that holds two switches. The 16-port switch comes with individual rails for each switch.

This section describes how to attach the mounting rails to an expansion cabinet for two-switch and four-switch configurations.

Installing the Mounting Rails for 8-Port Switches

▼ To Install the Rails for Two 8-port Switches

1. **Loosely start two stopper screws into each rail while they remain out of the cabinet (see FIGURE 3-2).**
2. **Working from the back of the cabinet, loosely start two screws into the cabinet rails. See FIGURE 3-2.**

See the on-line *Rackmount Placement Matrix* for the hole locations of your configuration.

3. **Working from the front of the cabinet, install the side rails by sliding the slot in the rail onto the screw.**

Note – The rails for left and right are identical but reversed for the two sides. The large hole is oriented near the back for both rails.

Use the slot marked L for the left rail. Use the slot marked R for the right rail.

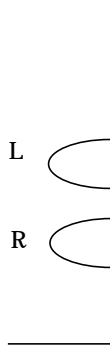


FIGURE 3-1 Detail of Rail, Showing Slots

4. Install three 10-32 screws on each rail.
5. Tighten the fourth screw.

▼ To Install Four Switches

1. Mount the first two switches.
See “To Install the Rails for Two 8-port Switches” on page 18.
2. Loosely start two stopper screws into each rail (see FIGURE 3-2).
3. Working from the back of the cabinet, loosely start two screws for the mounting rails into the cabinet (see FIGURE 3-2).
See the on-line *Rackmount Placement Matrix* for the correct screw holes for your configuration.
4. Working from the front of the cabinet, install the side rails by sliding the slot in each rail onto the screw (see FIGURE 3-1).
The large hole is oriented near the rear for both rails. Use the slot marked L for the left rail. Use the slot marked R for the right rail.

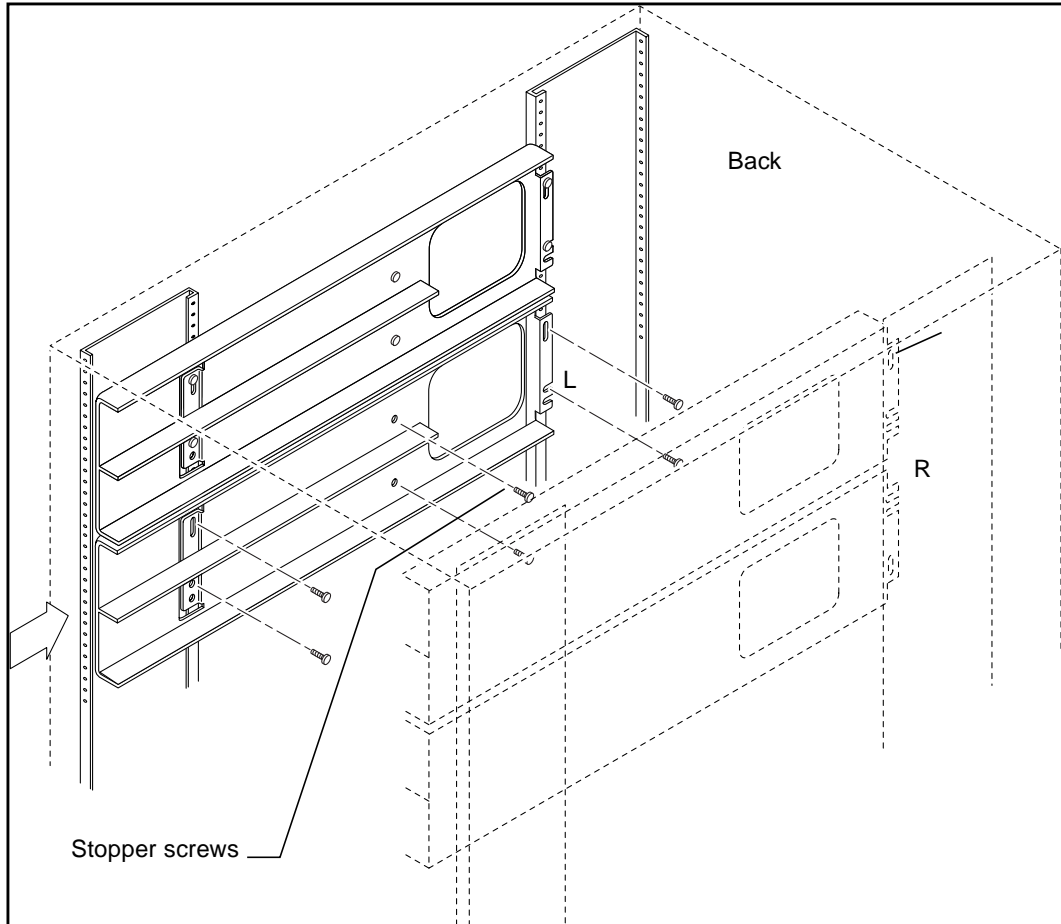


FIGURE 3-2 Installing Mounting Rails—Four-Switch Configuration

Installing the Mounting Rails for 16-Port Switches

The procedure for installing the mounting rails in an expansion cabinet for a Sun StorEdge network FC switch-16 switch is different from that of the 8-port switch. See FIGURE 3-3.

▼ To Install the Rails for Two 16-Port Switches

Each switch comes with two mounting rails. The rails are identical to each other. There is no left-right difference.

Preinstalling the Screws

1. Loosely start two stopper screws into each rail before you install the rails into the cabinet (see FIGURE 3-3).
2. Working from the rear of the cabinet, loosely start two screws into the cabinet for each mounting rail, one at each end (see FIGURE 3-3).

Refer to the online *Rackmount Placement Matrix* for the correct hole positions for your configuration.

Note – Install the screws into the cabinet holes before you place the rails.

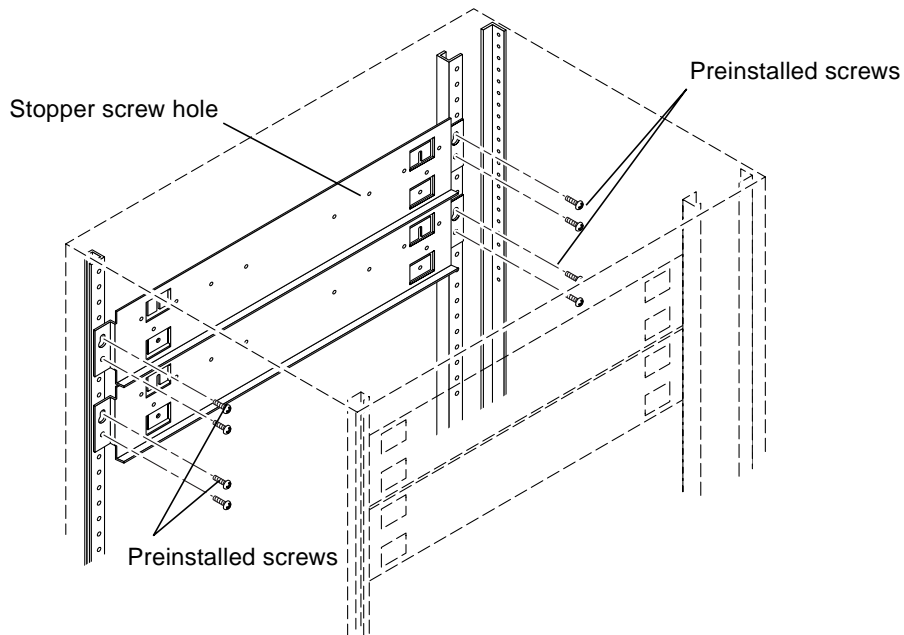


FIGURE 3-3 Installing the rails for a 16-port Sun StorEdge network FC switch-16 Switch

Installing the Mounting Rails

1. Working from the front of the cabinet, install the side rails by sliding the keyhole slot in the rail onto the screw.

Note – Install the lower rail in a two-switch configuration before the upper one.

- 2. Insert the remaining screws through the mounting rail into the cabinet rail.**
Do not tighten any of the screws until you have them all loosely started.
- 3. Tighten all the screws when all four screws in each bracket are in place.**
The order of tightening does not matter.

Installing the 8-Port Switch

▼ To Install the Switch

- 1. From the front of the cabinet, slide the first switch into the lowest of the mounting rails.**
The GBIC (GigaBit Interface Converter) side goes toward the back of the rack. The switch casing stops moving when it meets the stopper screw on the mounting rail.
- 2. Insert the front lockdown screws (see FIGURE 3-4).**
- 3. Tighten the stoppers.**

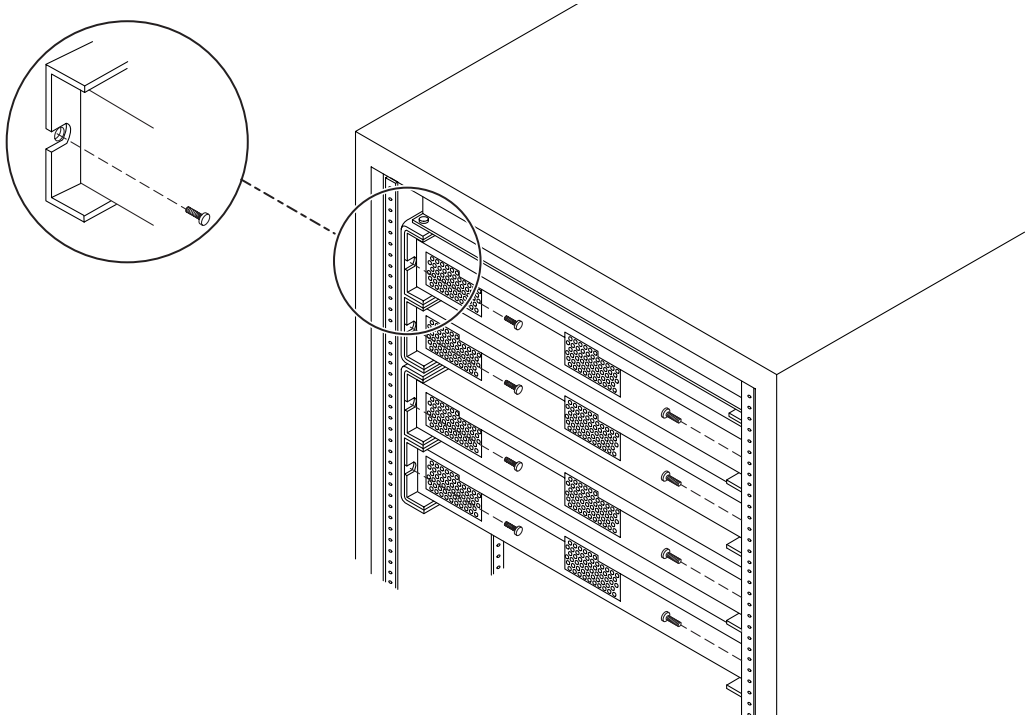


FIGURE 3-4 Installing Four 8-Port Switches Into the Mounting Rails

Installing a 16-Port Switch

▼ To Install the Switch

1. **From the front of the cabinet, slide the first switch into the lowest of the mounting rails.**

The GBIC side goes toward the back of the rack. The switch casing stops moving when it meets the front rail.

2. **Insert the front lockdown screws.**
3. **Tighten the stoppers.**

Installing the Vent Panel

Sun StorEdge network FC switch-8 Switch

The procedure for installing the vent panel varies with your configuration.

- If you have a two-switch configuration, install one vent panel and one 2-U filler panel.
- If you have a four-switch configuration, install two vent panels. No filler panel is necessary.

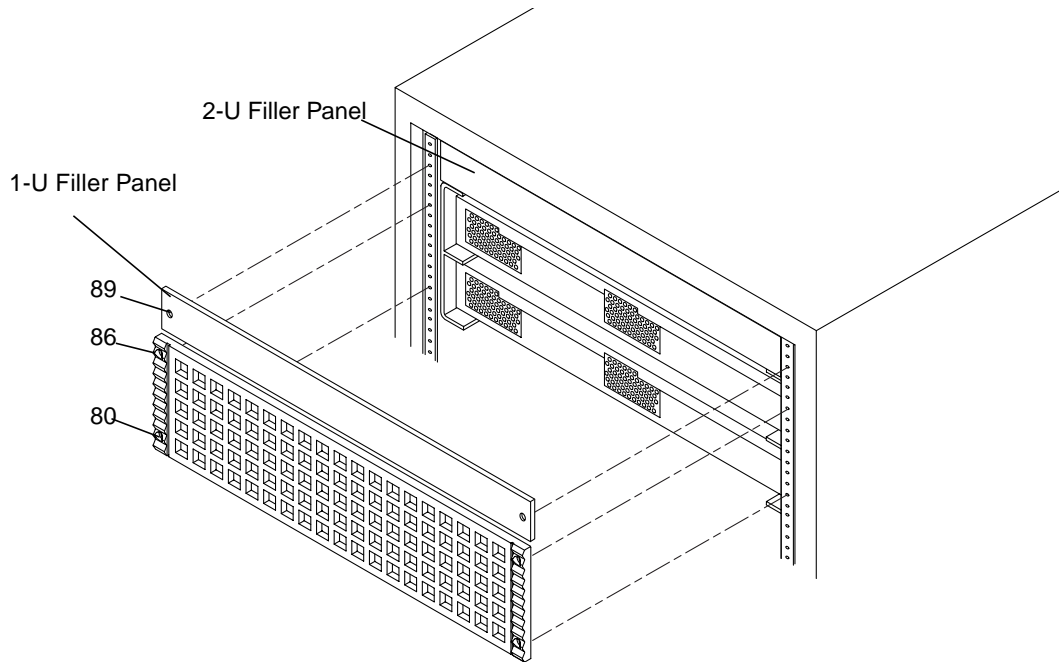


FIGURE 3-5 Installing the Vent Panel—The Two-Switch 8-port Configuration

▼ To Install the Vent Panel on the Two-Switch Configuration

1. Mount the vent panel over the front of each set of two switches.
2. Mount the filler panel above the vent panel and below the existing 2-U filler panel.
3. Tighten the captive screws.

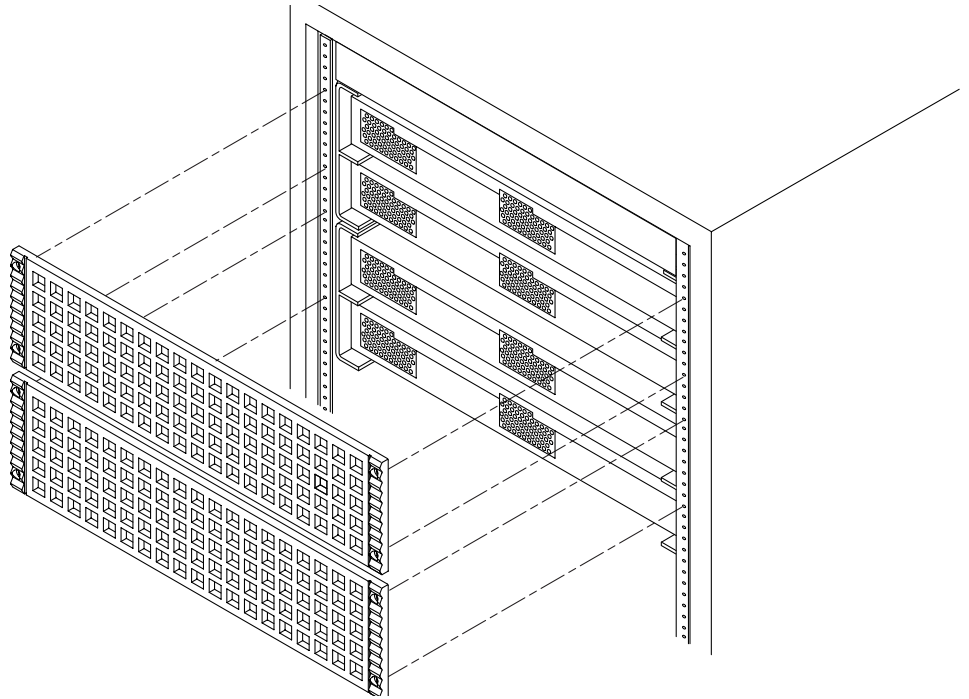


FIGURE 3-6 Installing the Vent Panel—The 8-port Four-Switch Configuration

▼ To Install the Vent Panels on a Four-Switch Configuration

1. Mount each of the two vent panels over the front of a set of two switches.
2. Tighten the captive screws.

Sun StorEdge network FC switch-16 Switch

Each of the 16-port switches comes with its own vent panel. Follow the instructions for the 8-port switch (Sun StorEdge network FC switch-8 switch). See “Sun StorEdge network FC switch-8 Switch” on page 24. See FIGURE 3-7.

Note – The 16-port switches do not require filler panels.

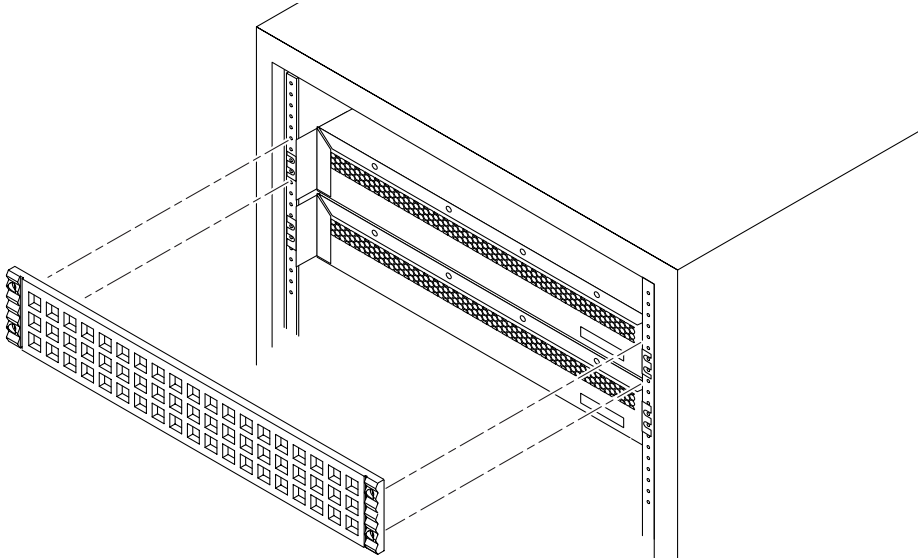


FIGURE 3-7 Installing the Vent Panel for a 16-port Switch

Installing, Connecting, and Routing the Cables

Some storage cabinets may have shorter and fewer power cords. In these cases, the Y-cable is provided to increase the number of power connections and provide adequate power cord length. Install the Y-cables only in the J8 or J12 connections of the power sequencer.

Installing the Y-cables in a Resident Cabinet

The procedure for replacing the existing cables with the new Y-cables is different for the Sun StorEdge A5200 Array and the Sun StorEdge T3 Disk Tray.

Sun StorEdge T3 Disk Tray

Replacing the Power Cable with the Y-cable

1. Power off the system.

For information about the Sun StorEdge T3 Disk Tray, refer to the documentation that came with the array.

2. Unplug the power cord from both fan trays and the J12 connections on both sequencers. See FIGURE 3-12 for the J12 location.

3. From the back of the cabinet, follow the route of the existing cables to the sides and up the rear of the cabinet, to the level of the switches.

The Y-cable on the back sequencer routes up the right side. The Y-cable on the front sequencer routes up the left side. Use tie wraps as necessary to secure the cables.

4. Connect the Y-cable on right side to the right side of the fan tray and the right side of number 8, T3.

5. Connect the Y-cable on the left side to the left side of the fan tray and the left side of number 8, T3.

6. Connect the existing R8 cable to the lowest switch.

7. Connect the existing L8 cable to the highest switch.

Sun StorEdge A5200 Array

Replacing the Power Cable with the Y-cable

If the existing power cords are too short, replace them with the Y-cable.

1. Power off the system.

For information about the Sun StorEdge A5200 Array, refer to the documentation that came with the array.

2. Remove the lower vented side panel from the right side.

3. Working from the back, push the lowest A5200 array about eight inches toward the front of the cabinet.
This will allow you access to the cables.
4. Disconnect the power cord from J8 on both sequencers. See FIGURE 3-12 for J8 location.
5. Connect the Y-cable to J8 on both sequencers.
6. Replace the side vent panel.
7. From the front, push the lowest A5200 array back into place.
8. Connect one end of the left Y-cable to the lowest switch. Connect the other end to the next switch.
If there are four switches, connect one end of the right Y-cable to the third switch. Connect the other end to the highest switch.
9. From the back of the cabinet, follow the route of the existing cables to the sides and up the rear of the cabinet, to the level of the switches.
The Y-cable on the back sequencer routes up the right side. The Y-cable on the front sequencer routes up the left side. Use tie wraps as necessary to secure the cables.

Connecting and Routing the Cables for a Sun StorEdge A3500FC Array

When you have the switch(es), vent, and filler panels in place, you must connect and route the cables. If the existing power cords are too short, replace them with the Y-cable.

1. Working from the back, connect the power cord(s). (See FIGURE 3-8, FIGURE 3-9, and FIGURE 3-10).
Allow the power cord to dangle temporarily.

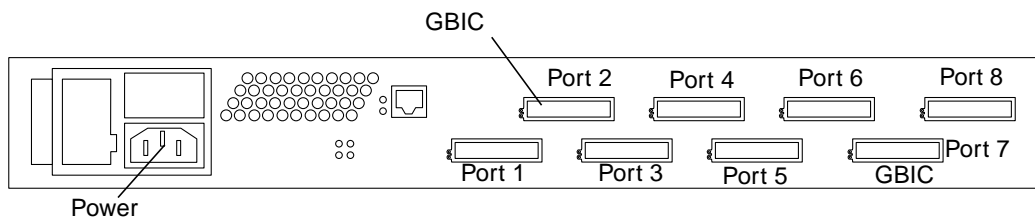


FIGURE 3-8 Sun StorEdge network FC switch-8 Switch Rear View

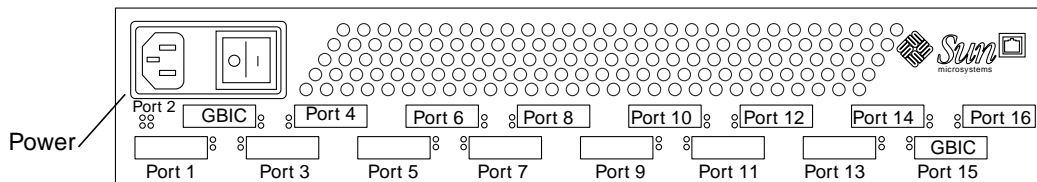


FIGURE 3-9 Sun StorEdge network FC switch-16 Switch Rear View

2. Install the GBIC.

See the “Removal and Replacement Procedures” chapter of the *SANbox 8/16 Segmented Loop Switch User’s Manual* for instructions on installing a GBIC.

3. Connect the fibre channel cables to the host bus adapters.

In the 16-port switch, four groups are possible.

1. Group 1 = ports 1-4
2. Group 2 = ports 5-8
3. Group 3 = ports 9-11
4. Group 4 = ports 12-16

Connect the host bus adapters to the first and the last ports of a zone. For example, in a four-port zone, connect the host bus adapters to ports 1 and 4.

4. Connect the Fibre Channel cables to the storage arrays.

For example, connect the cables in group 1 to ports 2 and 3.

5. Use a tie wrap to secure the Fibre Channel cables, as shown in FIGURE 3-12 and FIGURE 3-13.

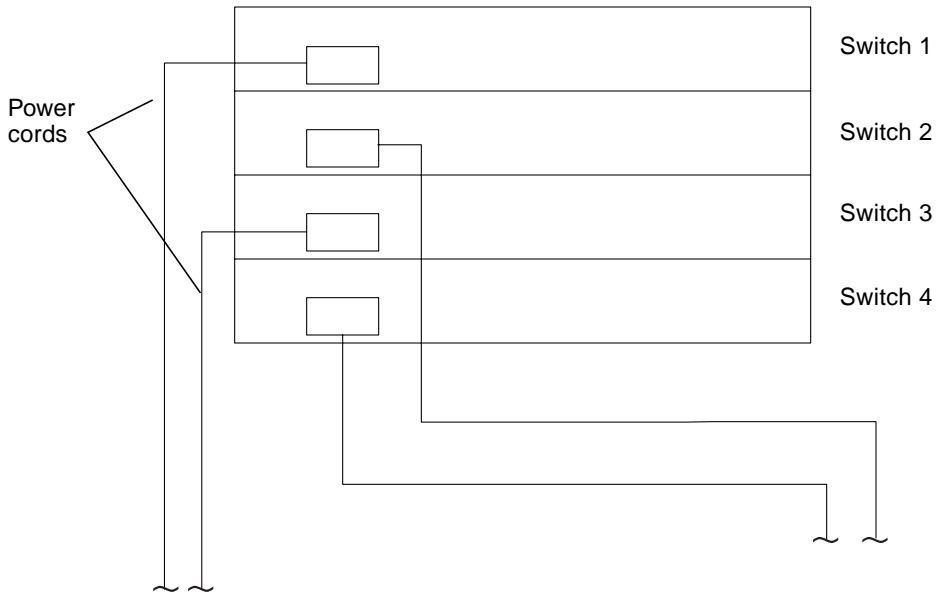


FIGURE 3-10 Power Connection for Two or Four Switches

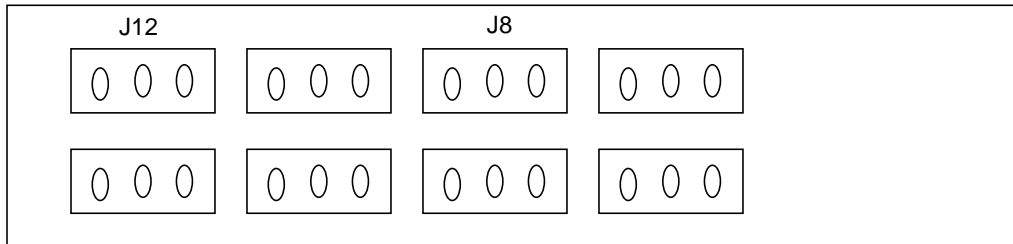


FIGURE 3-11 Power Sequencer

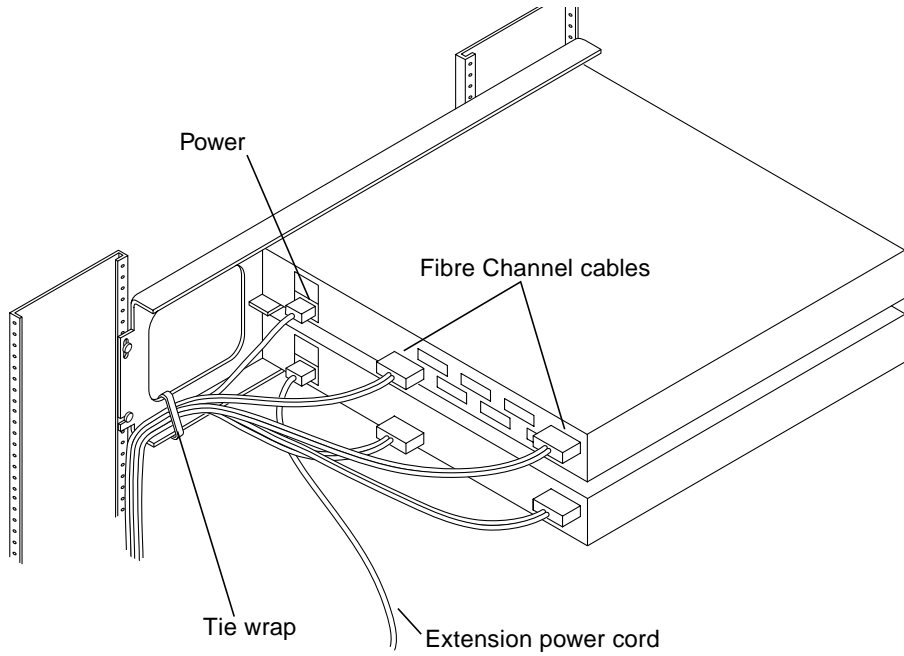


FIGURE 3-12 Example of Cable Routing for the 8-port Switch

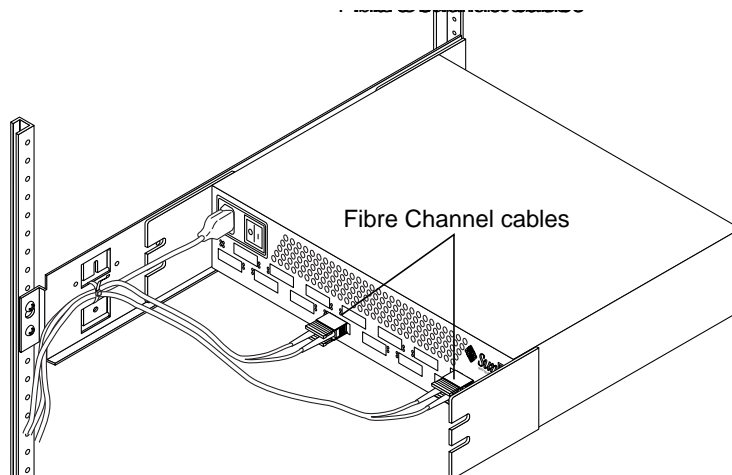


FIGURE 3-13 Example of Cable Routing for the 16-port Switch

Note – Connections to storage arrays are not shown in these figures.

Switch Activation

This chapter contains the procedures for bringing the new Sun StorEdge FC Switch 2.0 software onto the network.

Configuring the Switch Ethernet Port

The IP address of a switch shipped from manufacturing is set to the default value of 10.0.0.1. This default IP address can be set or changed using the Reverse Address Resolution Protocol (RARP), Trivial File Transfer Protocol (TFTP), or the switch management GUI.

RARP

You can use RARP to set the address when you first receive the switch or if you forget the switch IP address.

Note – To set the IP address using the TFTP or GUI methods, see Chapter 2 in the *Sun Switch Management Installer's User's Manual*.

The Sun StorEdge FC Switch 2.0 RARP feature automatically downloads the assigned IP address to the switch. After you cable the disk tray and power on your system, the IP address is automatically assigned.

Before you begin, make sure you have the following information:

IP address _____ Contact the person who maintains your network for this information.
MAC address _____ See FIGURE 4-1 and FIGURE 4-2 for the location

Switch name _____ of the MAC Address.
This is the assigned name of the switch you are installing.

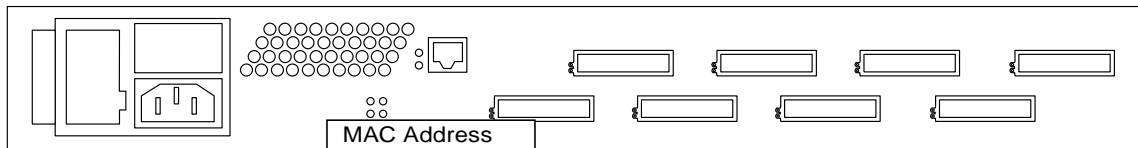


FIGURE 4-1 Sun StorEdge FC switch-8 Switch Rear View

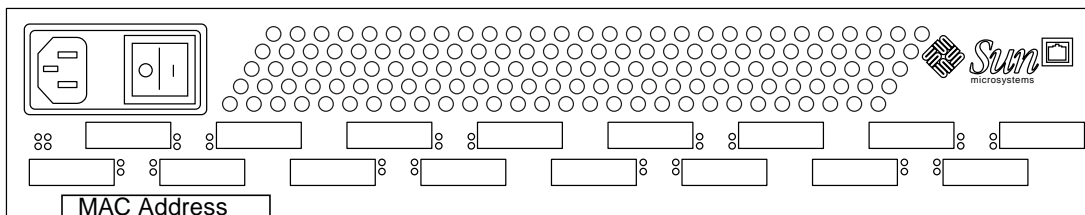


FIGURE 4-2 Sun StorEdge network FC switch-16 Switch Rear View

▼ To Set the Network IP Address For the Switch:

1. On a host connected to the same subnet as the switch, save your current configuration to a file by typing:

```
# cp -p /etc/ethers /etc/ethers.SAV
# cp -p /etc/nsswitch.conf /etc/nsswitch.conf.SAV
# cp -p /etc/hosts /etc/hosts.SAV
```

2. On a host connected to the same subnet as the switch, edit the `/etc/ethers` file by adding the MAC address and switch name.

For example:

```
8:0:20:7d:93:7e switch_name
```

In this example:

- 8:0:20:7d:93:7e is the MAC address
- switch_name is the name of the switch you are installing.

3. Edit the /etc/hosts file with the IP address and switch name.

For example:

```
192.129.122.111 switch_name
```

In this example, 192.129.122.111 is the assigned IP address.

4. Edit the /etc/nsswitch.conf file to reference the local system files.

To ensure that the Solaris software environment uses the changes made to /etc/ethers and /etc/hosts files, edit the host and ethers entries in the /etc/nsswitch.conf file so that the files parameter appears before the [NOTFOUND=return] statements.

```
hosts:      nis files [NOTFOUND=return]
ethers:     nis files [NOTFOUND=return]
```

5. Determine whether the RARP daemon is running by typing:

```
# ps -eaf | grep rarpd
```

6. If RARP is not running, start the RARP daemon in the Solaris software environment by typing:

```
# /usr/sbin/in.rarpd -a &
```

The IP address will automatically download to the switch after you install the switch and power on the system.

Note – RARP might not work properly if you have connected the ethernet port of the FC switch to an ethernet switch; this is due to the long time it might take for the ethernet switch to transmit the RARP. In such a case you can use TFTP or the management GUI to change the IP address. See the *Sun Switch Management Installer's User's Manual*.

7. Turn the switch power off, and then back on.

8. Verify the switch IP address.

```
# ping <ip_address>
```

For example:

```
# ping 192.129.122.111
```

Installing the Sun StorEdge Network FC Switch 2.0 GUI

The Sun StorEdge FC Switch 2.0 GUI application is supported on JDK 1.2.2_05a and later. Refer to the CD documentation, 804-7287-10, packaged with the system, for instructions.

Upgrading the GUI

If Sun StorEdge FC Switch 1.0 (Version 2.06.16) GUI has been installed in the system, you must perform a package removal before you install the Sun StorEdge FC Switch 2.0 GUI.

▼ Removing the 1.0 GUI

1. In the root directory type:

```
# pkgrm SUNWsmgr
```

The following message is displayed.

```
The following package is currently installed.  
SUNWsmgr SANSurfer, Zlogic Fibre Channel Administration  
(i86pc, sparc) 2.06.16  
Do you want to remove this package?
```

2. Type:

```
# y [Yes]
```

The following message is displayed.

```
## Removing installed package instance <SUNWsmgr>
## Verifying package dependencies.
## Processing package information.
## Removing pathnames in class <none>
/usr/opt/SUNWsmgr/bin/esm_smgr
/usr/opt/SUNWsmgr/bin/Sun.jar
/usr/opt/SUNWsmgr/bin
/usr/opt/SUNWsmgr/app.dat
/usr/opt/SUNWsmgr <non-empt directory not removed>
## Updating system information.
Removal os <SUNWsmgr> was successful.
```

Installing the 2.0 GUI

Adding the GUI package.

● Type:

```
pkgadd -d SUNWsmgr
```

Starting the GUI

You may start the GUI in two ways:

● Use the Java™ command line.

For the first method, type:

```
java -jar /usr/opt/SUNWsmgr/bin/esm_smgr
```

- **For the second method, install and bring up Component Manager 2.1.**

Click the `Launch` button.

See the Component Manager documentation that came with your software for more details on how to install and use Component Manager.

The login window appears.

If this is the first time this switch has been logged into, or if no `username` and `password` file have been created by a superuser, use the default username and password, which is `su` for each one. Otherwise, use the username and password assigned during a previous session.



Setting the Stage Type

After installing the GUI, you must set the stage type to `SL Zoning (Split Loop)`.

`SL zones` allow you to divide the `SL ports` into multiple zones that define which ports will communicate with each other. Communications occur only between ports in the defined `SL zone`.

The switches are shipped from the factory set to `Hub mode/SL mode`. This stage type must to be changed to `SL Zoning`.

▼ To Change Hub Single Zone to `SL Zoning`

1. **In the `Fabric` window, enter the IP address of the switch in the `IP Address Field`.**

`SANSurfer` finds the switch and a gray `Sun icon` is displayed in the status box.

If a red `Sun icon` is displayed in the Status box, `SANSurfer` did not find the switch.

If the red `Sun icon` appears, check the following:

- a. Does the switch have power?
 - b. Is the Ethernet cable plugged into the switch?
 - c. Is the IP address on the switch the same as the IP address in the IP Address Field in SANSurfer?
2. When the gray Sun icon appears, double-click it.
The Topology window opens and the following message is displayed:

Before you can use Zoning, you must change the stage type to SL Zoning.

3. Click the OK.
4. Enter the switch Faceplate window by double clicking the switch icon.

▼ To Change the Stage Type

1. In the Fabric window, click the Stage Type button.
The default for this button is Hub - single zone.
2. Click SL-Zoning and then Apply.
The following message is displayed.

Modifying switch parameters may disrupt SAN traffic. Do you want to continue?

3. Click the Yes button.
The following message is displayed.

Changing Chassis Type <Hub <-->Fabric) requires a save to NV-RAM and a switch reset to take effect. Do you still wish to change Chassis Type?

4. Click the Yes button.
The following message is displayed.

Your port changes have been applied to the switch. Do you want to save these changes in non-volatile memory?

5. Click the Yes button.

The switch resets and the SANSurfer screen displays the Fabric window.

Re-zoning and Moving A3500FC LUNs from Host A to Host B

Before you can rezone, a few procedures are necessary.

▼ To Rezone From Host A

- 1. Stop all activity to the A3500FC LUNs.**
- 2. Stop RM 6.22.Type:**

```
# /etc/init.d/rdacctrl stop.
```

- 3. Unmount any A3500FC LUNs from /etc/vfstab.**
- 4. Deport any VM Disk Groups.**

The system is ready for rezoning. You can move the A3500FC LUNs from Host A to Host B.

- 5. Run /etc/init.d/rdacctrl config.**
- 6. If necessary, run /etc/init.d/rdacctrl start.**

▼ To Rezone From Host B

- 1. If RM 6.22 has been installed, run the hot_add command.**

If RM 6.22 has not been installed, you must install it and run several commands.

- a. Install the RM 6.22 software.**
- b. Run the following commands.**

```
# /etc/init.d/rdacctrl stop
# /etc/init.d/rdacctr config
# /etc/init.d/rdacctr start
```


2. **Import any VM Disk Groups.**
3. **Mount any VM Volumes in `/etc/vfstab`.**
It may be necessary to run `fsck`.

▼ To Rezone and Move StorEdge A5200 or Sun StorEdge T3 LUNs from Host A to Host B

The procedure for rezoning and moving the Sun StorEdge A5200 Array and Sun StorEdge T3 Disk Trays is almost identical to the procedure for the Sun StorEdge A3500 FC Array.

1. **Run `luxadm remove` on Host A.**
2. **Run `luxadm insert` on Host B.**

Multiple Switches

The Sun StorEdge Network FC Switch 2.0 GUI displays only one switch in the Fabric window display, compared to Version 1.0, which displayed multiple switches in the Fabric window.

Managing Multiple Switches

You must perform several operations to manage multiple Fabrics (switches).

▼ To Save a Switch Configuration to Disk

1. **In the Fabric window, type the switch IP address in the IP Address field.**
2. **Click File and then Save As.**
 - a. **Enter the Fabric name of the switch.**
 - b. **Click the OK button.**

The Fabric is saved to disk.

▼ To Save a Subsequent Switch Configuration to Disk

1. **Click the gray Sun Icon to highlight the Fabric fields.**
2. **Click the Delete button.**

The current Fabric field line disappears.

3. **Click in the IP Address field and type the new switch IP address.**
4. **Click File and then Save As.**
 - a. **Enter the Fabric name of the switch.**
 - b. **Click the OK button.**

The new switch Fabric is saved to disk.

▼ To Recall a Switch Configuration

1. **Click File.**
2. **Click Open Fabrics.**

A *Load from file* pop-up window displays all Fabrics with a `.fab` extension.
3. **Click the Fabric you want to recall, and Click OK.**

The new Selected Fabric has been added.

▼ To Delete a Switch Configuration

1. **Click File.**
2. **Click Delete Fabrics File.**
3. **Highlight the Fabric you want to delete.**
4. **Click OK.**

The Fabric is deleted.