Sun™ StorEdge™ A7000 Operations Guide

THE NETWORK IS THE COMPUTER™

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Declaration of Conformity

Compliance ID: 1660

Product Name: Sun StorEdge A7000
Encore Infinity SP-40

EMC

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

EN55022 / CISPR22 (1985)		Class A
EN50082-1	IEC801-2 (1991)	4 kV (Direct), 8 kV (Air)
	IEC801-3 (1984)	3 V/m
	IEC801-4 (1988)	1.0 kV Power Lines, 0.5 kV Signal Lines

Safety

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

EC Type Examination Certificates:

EN60950/IEC950

EN60950 w/ Nordic Deviations

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

/ S /
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Manager, Product Compliance

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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.

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, MK48T08, M48T02-200PC1, or M48T02-XXXPCZ. 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.

System Unit Cover

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

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 dreiadrigen 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, MK48T08, M48T02-200PC1, oder M48T02-XXXPCZ). 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.

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.

CD-ROM

Warnung – Die Verwendung von anderen Steuerungen und Einstellungen oder die Durchfhrung von Prozeduren, die von den hier beschriebenen abweichen, knnen gefhrliche 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. Evitez 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.

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, MK48T08, M48T02-200PC1, ou M48T02-XXXPCZ.) 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.

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.

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 los 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 sobrecalentamien-tos no deben obstruirse o taparse las rejillas del equipo. Los productos Sun nunca deben situarse cerca de radiadores o de fuentes de calor.

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, MK48T08, M48T02-200PC1, o M48T02-XXXPCZ. 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.

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.

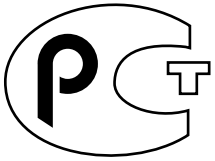
Aviso de cumplimiento con requisitos de láser

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

A D V A R S E L – Litiumbatteri — Eksplosjonsfare. Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten. Brukt batteri returneres apparatleverandøren.

Sverige

VARNING – Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

Danmark

ADVARSEL! – Litiumbatteri — Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

Suomi

VAROITUS – Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

Regulatory Compliance Statements

Your Sun product is marked to indicate its compliance class:

- Federal Communications Commission (FCC) — USA
- Department of Communications (DOC) — Canada
- Voluntary Control Council for Interference (VCCI) — Japan

Please read the appropriate section that corresponds to the marking on your Sun product before attempting to install the product.

FCC Class A Notice

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 not installed and used in accordance with the instruction manual, 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 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.

FCC Class B Notice

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 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.

DOC Class A Notice - Avis DOC, Classe A

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

DOC Class B Notice - Avis DOC, Classe B

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

VCCI 基準について

第一種VCCI基準について

第一種VCCIの表示があるワークステーションおよびオプション製品は、第一種情報装置です。これらの製品には、下記の項目が該当します。

この装置は、第一種情報装置(商工業地域において使用されるべき情報装置)で商工業地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会(VCCI)基準に適合しております。したがって、本製品を、住宅地域または住宅地域に隣接した地域でご使用になりますと、ラジオ、テレビジョン受信機等に受信障害を与えることがあります。

取り扱い説明書に従って正しくお取り扱いください。

第二種VCCI基準について

第二種VCCIの表示  があるワークステーションおよびオプション製品は、第二種情報装置です。これらの製品には、下記の項目が該当します。

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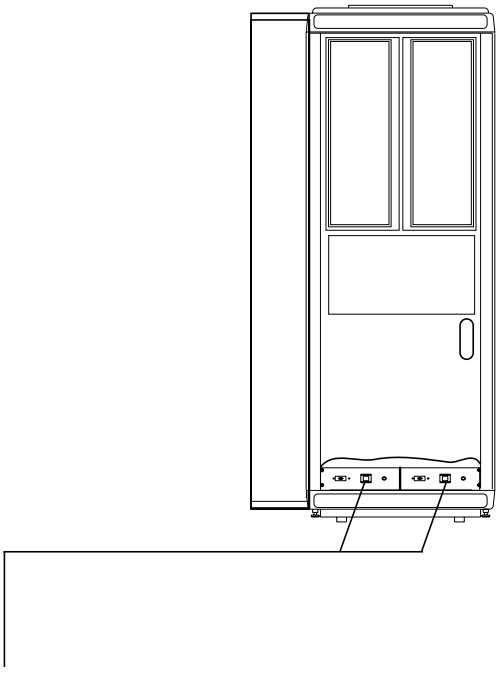
取り扱い説明書に従って正しくお取り扱いください。

WARNING: AVERTISSEMENT: ACHTUNG:

- No AC disconnect switch in equipment. A disconnect device must be provided on the wall.
- L'appareil ne comporte pas d'interrupteur c.a. Un interrupteur doit être installé au mur.
- Kein ausschaltbarer Ws-Schalter am Gerät. Ein solcher Schalter muß in der Installation angebracht werden.

- Versorgungs spannung:
  - Kein Netzschalter am Gerät, CB in der Installation öffnet bei Gefahr.
  - An die Anschluß leitung muß ein JEC Stecker Tye B angeschlossen werden.



- Shown are the main disconnect switches for this equipment. All other switches with "IO" markings power down individual components.
- L'interrupteur principal de cet appareil est illustré. Les autres interrupteurs marqués "IO" coupent l'alimentation aux composants individuels.
- Dargestellt ist der Hauptschalter dieses Geräts. Alle anderen mit "IO" versehenen Schalter schalten die einzelnen Komponenten aus.

Contents

Figures

Tables & Code Examples

Preface

This Operations Guide describes operator-level tasks performed on the StorEdge™ A7000 Intelligent Storage Server™. This guide defines operator-level tasks as:

- Powering the entire StorEdge A7000 on and off, including hardware and software
- Powering portions of the server on and off
- Viewing initialization and other power on / off messages
- Using basic System Console features

The operator station is the notebook computer System Console; a carrier inside the integrated console tray at the front of the cabinet holds the System Console.

This guide assumes that your StorEdge A7000 server has already been installed and powered on by trained field engineers at your site.

This guide does not describe issues related to:

- Service
- System administration
- Hardware changes or upgrades
- Software updates

Note – Use the power off and on procedures described in this manual for emergency power cycling only. Contact your Sun representative for scheduled or other power off requirements.

How This Book Is Organized

Chapter 1 describes how to open the tray containing the System Console, and use basic physical features of the System Console, like contrast/brightness adjustment, trackball mouse and buttons.

Chapter 2 describes how to power the StorEdge A7000 on and off. It contains drawings showing where power switches are located and other features of the StorEdge A7000 cabinet. It also describes the software commands needed to shut down the operating system software.

Glossary is a list of words and phrases found in this book and their definitions.

Using UNIX Commands

This document may not contain information on basic UNIX® commands. See the software documentation that you received with your server.

Typographic Conventions

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Examples
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output.	Edit your `.login` file. Use `ls -a` to list all files. `% You have mail.`
`AaBbCc123`	What you type, when contrasted with on-screen computer output.	`% su` `Password:`

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Examples
AaBbCc123	Book titles, new words or terms, words to be emphasized. Command-line variable; replace with a real name or value.	Read Chapter 6 in the *User's Guide.* These are called *class* options. You *must* be `root` to do this. To delete a file, type `rm` *filename.*
Key names and key caps	Initial capitals for full names	Press Escape. Press the Control key.
Key names and key caps	All capitals for abbreviations	Press ESC. Press CTRL.

Graphical User Interface Terms

TABLE P-2 Graphical User Interface Terms

Verb	Action	Example
Choose	To open a menu or initiate a command.	Choose New from the File menu.
Click	To press and release a mouse button without moving the pointer.	Click the left mouse button.
Double-click	To click a mouse button twice quickly without moving the pointer.	Double-click on the File Manager icon to re-open the program.
Drag	To move the pointer or an object by sliding the mouse with one or more buttons pressed.	Drag the Applications Menu Bar to the left corner of the screen.
Point	To move the mouse pointer to a specific location on the screen with no mouse buttons pressed.	Point to the Trash icon and click to select it.
Press	To push a mouse button down and continue to hold it.	Press the left mouse button on the OK button.
Release	To let up on a mouse button to initiate an action.	Release the left mouse button when the Print button is highlighted.
Select	To highlight an entire window or data in a window.	Select the Applications Menu bar. Select the dsp1 window.

Shell Prompts

TABLE P-3 Shell Prompts

Shell	Prompt
C shell	*machine_name%*
C shell superuser	*machine_name#*
Bourne shell and Korn shell	$
Bourne shell and Korn shell superuser	#

Ordering Sun Documents

SunDocs[SM] is a distribution program for Sun Microsystems technical documentation. Contact SunExpress for easy ordering and quick delivery. You can find a listing of available Sun documentation on the Web.

TABLE P-4 SunExpress Contact Information

Country	Telephone	Fax
Belgium	02-720-09-09	02-725-88-50
Canada	1-800-873-7869	1-800-944-0661
France	0800-90-61-57	0800-90-61-58
Germany	01-30-81-61-91	01-30-81-61-92
Holland	06-022-34-45	06-022-34-46
Japan	0120-33-9096	0120-33-9097
Luxembourg	32-2-720-09-09	32-2-725-88-50
Sweden	020-79-57-26	020-79-57-27
Switzerland	0800-55-19-26	0800-55-19-27
United Kingdom	0800-89-88-88	0800-89-88-87
United States	1-800-873-7869	1-800-944-0661
World Wide Web: `http://www.sun.com/sunexpress/`		

Sun Documentation on the Web

The `docs.sun.com` web site enables you to access Sun technical documentation on the Web. You can browse the `docs.sun.com` archive or search for a specific book title or subject at:

`http://docs.sun.com.`

Sun Welcomes Your Comments

We are interested in improving our documentation and welcome your comments and suggestions. You can email your comments to us at:

`smcc-docs@sun.com`.

Please include the part number of your document in the subject line of your email.

CHAPTER 1

The System Console

This chapter describes:

Accessing the System Console

The System Console, a microprocessor-based notebook computer, is located in a carrier tray. When the System Console is not in use, close the tray. FIGURE 1-1 shows where the tray and System Console are located.

▼ To Open the System Console Tray and Cover

1. **Turn the spring-loaded tray on the tray clockwise to release the tray.**
2. **Fold down the front door tray.**
3. **There is one screen latch on each side of the System Console, as shown in** FIGURE 1-2**. Slide the latches and lift the cover.**

Note – Some System Console models have screen latches on the front, on the left and right sides. Slide the left latch to the left, and the right latch to the right; lift the cover. Other models have one screen latch in the front; push the latch in and lift the cover

---

▼ To Close the System Console Tray and Cover

1. **Close the System Console cover by pushing it down until the latches engage.**
2. **Fold up the tray. When it is nearly closed, turn the tray latches clockwise, push the tray all the way up, and release the latches to secure the tray.**

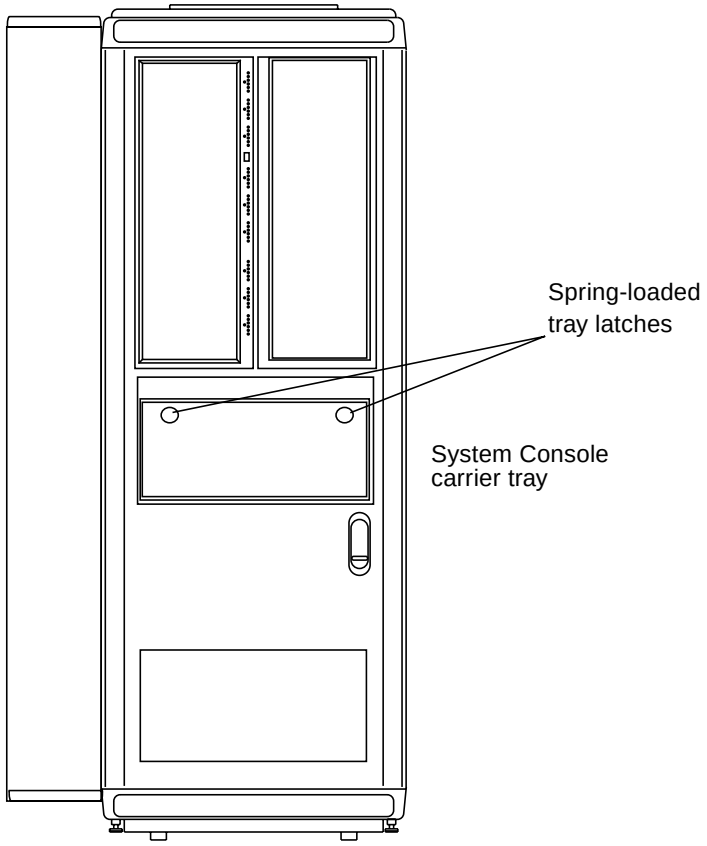


FIGURE 1-1 System Console Location

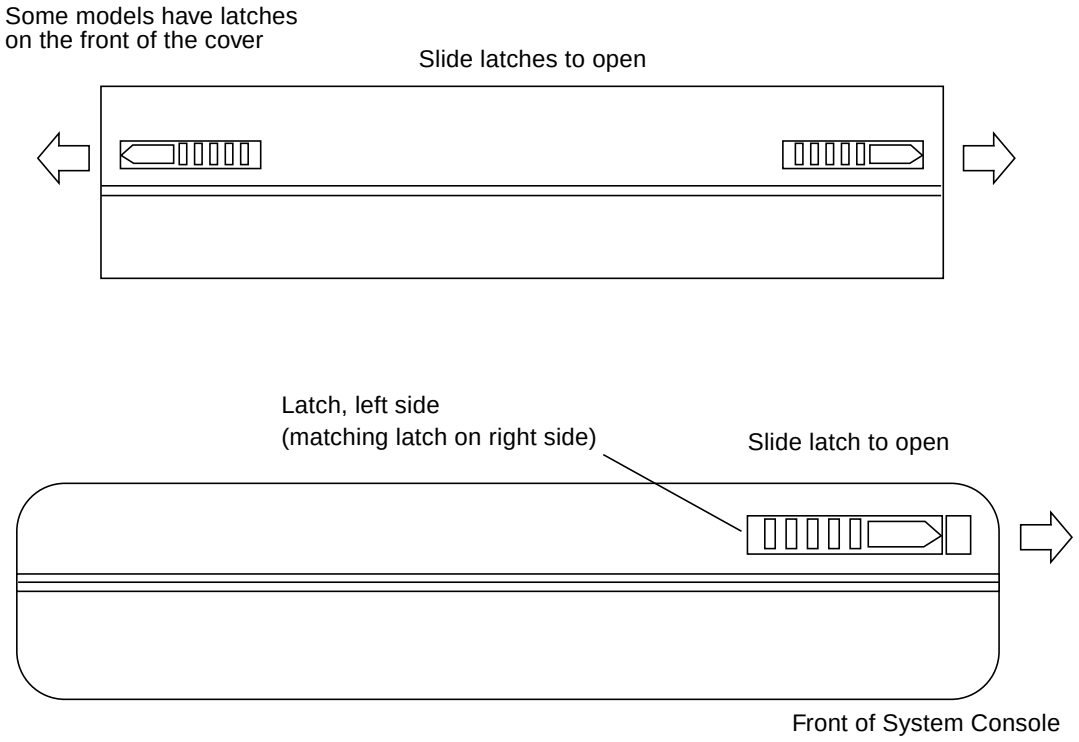


FIGURE 1-2 System Console Cover Latches

Using the Trackball / Trackpad / Pointing Device, Mouse Buttons, and Display Adjustment Keys

Because the System Console uses a graphical user interface (GUI), you use the trackball / trackpad mouse or pointing device and two mouse buttons. See FIGURE 1-3. Refer to “Graphical User Interface Terms” on page xxviii for GUI terminology used in this Guide.

Note – Some System Console models have primary and secondary mouse buttons. This guide refers to the primary button as “left” and the secondary button as “right”.

▼ To Move the Mouse Pointer and Select Features

1. **Rotate the trackball to move the mouse pointer.**

   On the System Console with a trackpad mouse or pointing device, move the mouse pointer by placing your finger on the trackpad or pointing device; the pointer moves as your finger moves.

2. **Click the left or right buttons to select features, as directed in the text.**

▼ To Adjust Display Brightness and Contrast

As shown in FIGURE 1-3, in the lower left corner of the System Console keyboard is the Fn key. This key, when combined with certain function keys at the top of the keyboard, adjusts the System Console's display brightness and contrast.

Note – On the System Console with the pointing device, a contrast / brightness control is near the front edge of the case.

---

1. **Move the mouse pointer to any open area on the display background (but not in a window).**
2. **Press the Fn key.**
3. **Repeatedly press the corresponding function key to increase or reduce contrast or brightness. See** TABLE 1-1**.**

TABLE 1-1 Display Adjustment Function Key Combinations

System Console with:	Press:	To:
Trackball mouse	Fn and F7	reduce contrast
	Fn and F8	increase contrast
	Fn and F9	reduce brightness
	Fn and F10	increase brightness
Trackpad mouse	Fn and F3	reduce contrast
	Fn and F4	increase contrast
	Fn and F1	reduce brightness
	Fn and F2	increase brightness

System Console Power-Saving Sleep Mode

When the System Console is on but idle for a minute, the display will go blank. A blank display indicates that the System Console is in the power-saving mode. To reactivate the System Console and display, press any key.

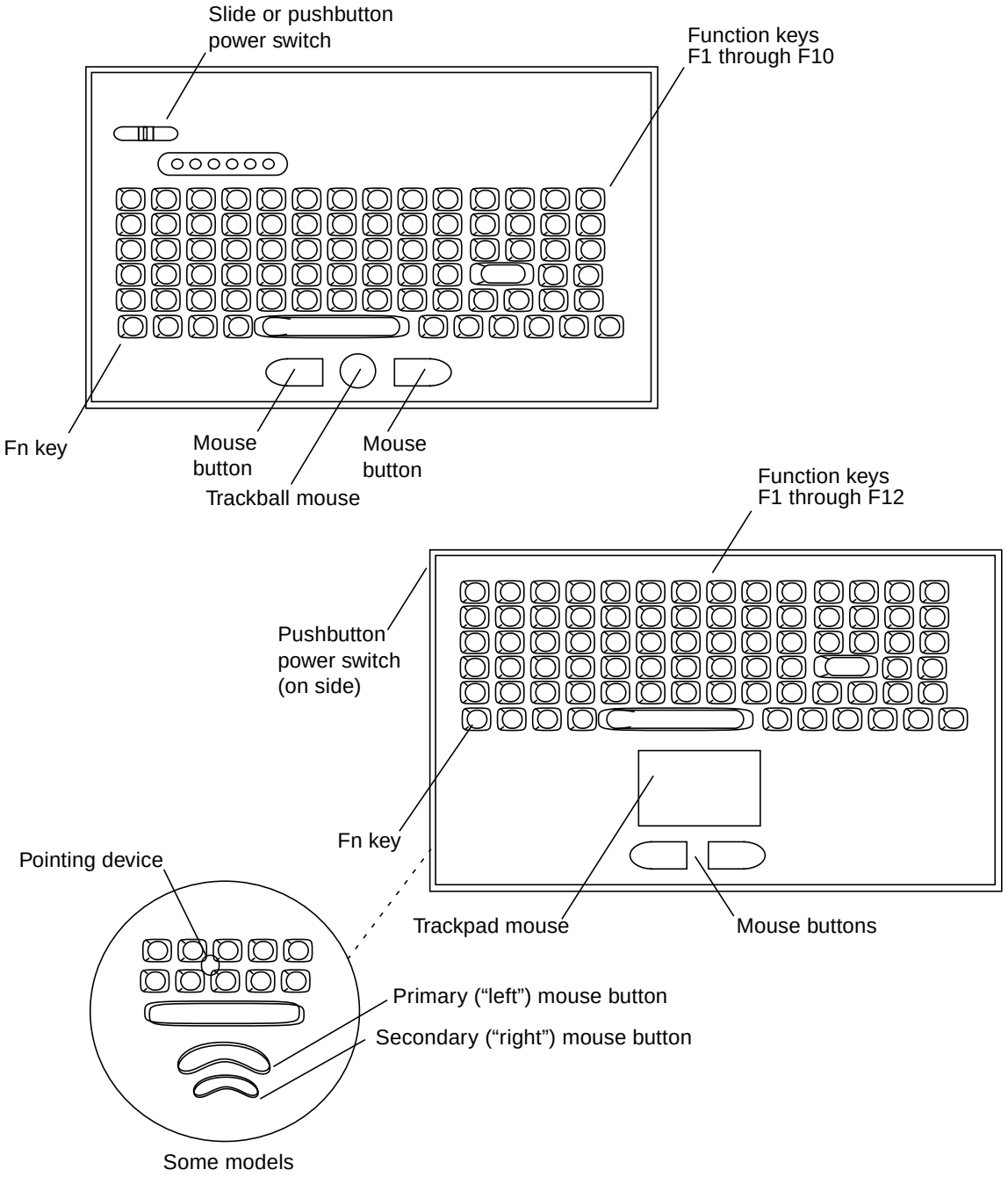


FIGURE 1-3 System Console Keyboard With Trackball / Trackpad mouse / Pointing Device

CHAPTER 2

Power On & Off Procedures

Caution – Power supply components inside the StorEdge A7000 cabinet contain high voltages. Observe your site safety regulations at all times. The following is also recommended:

Arrange for another person familiar with the power-off controls to be in the immediate vicinity.

Remove all rings, wrist watches, chains, necklaces, and bracelets.

This chapter describes power on and power off procedures for the StorEdge A7000, including:

Powering On the StorEdge A7000

The initial system power on procedure includes the following steps:

1. **Powering on the power conditioning unit (PCU).**
2. **Opening the front cabinet door.**
3. **Powering on the cabinet power supply.**
4. **Powering on the System Console.**
5. **Opening windows into each StorEdge A7000 subsystem.**

Steps described in “Coldstarting The StorEdge A7000” on page 24 complete the power on procedure.

▼ To Power on the Power Conditioning Unit (PCU)

1. **Turn the customer-supplied AC power ON at the source main breaker.**
2. **At the front of the PCU, turn the key switch inside the front panel to AUTO. To open the panel, pull it down at the notches. See** FIGURE 2-1**.**
3. **At the rear of the PCU, put the power circuit breaker in the ON position.**

▼ To Open the Front Cabinet Door

The front cabinet door is located at the lower half of the cabinet (the upper half holds the HDSA drawers). The front door also contains the System Console in its tray carrier. See FIGURE 2-2. To open the front cabinet door:

1. **Insert a flat blade screwdriver in the door lock and turn it clockwise.**
2. **Pull the bottom of the latch out (toward you) and turn the latch assembly counterclockwise.**
3. **Pull the latch to open the door. The door must be open to perform the power on procedures.**

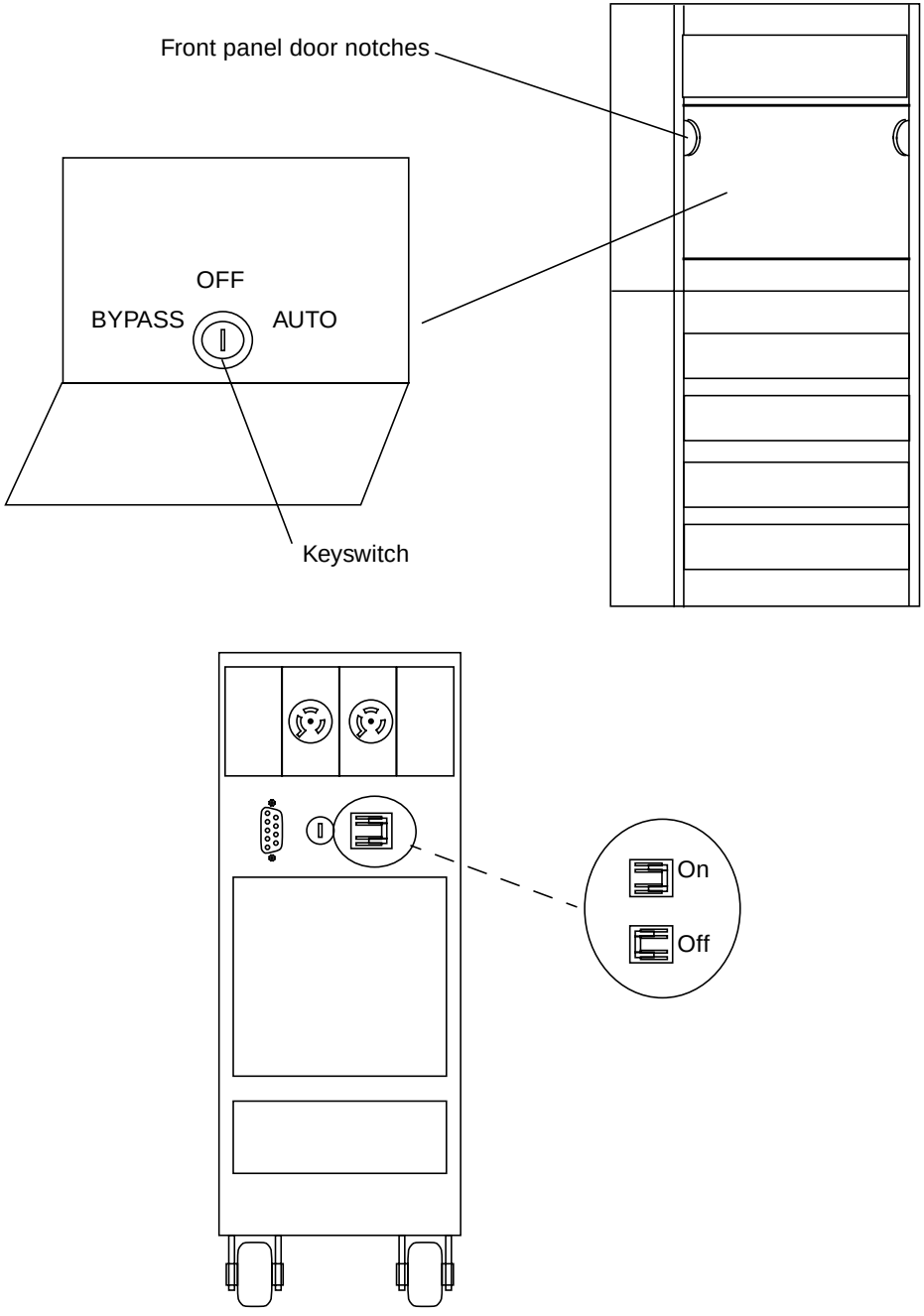


FIGURE 2-1 PCU Keyswitch and Circuit Breakers

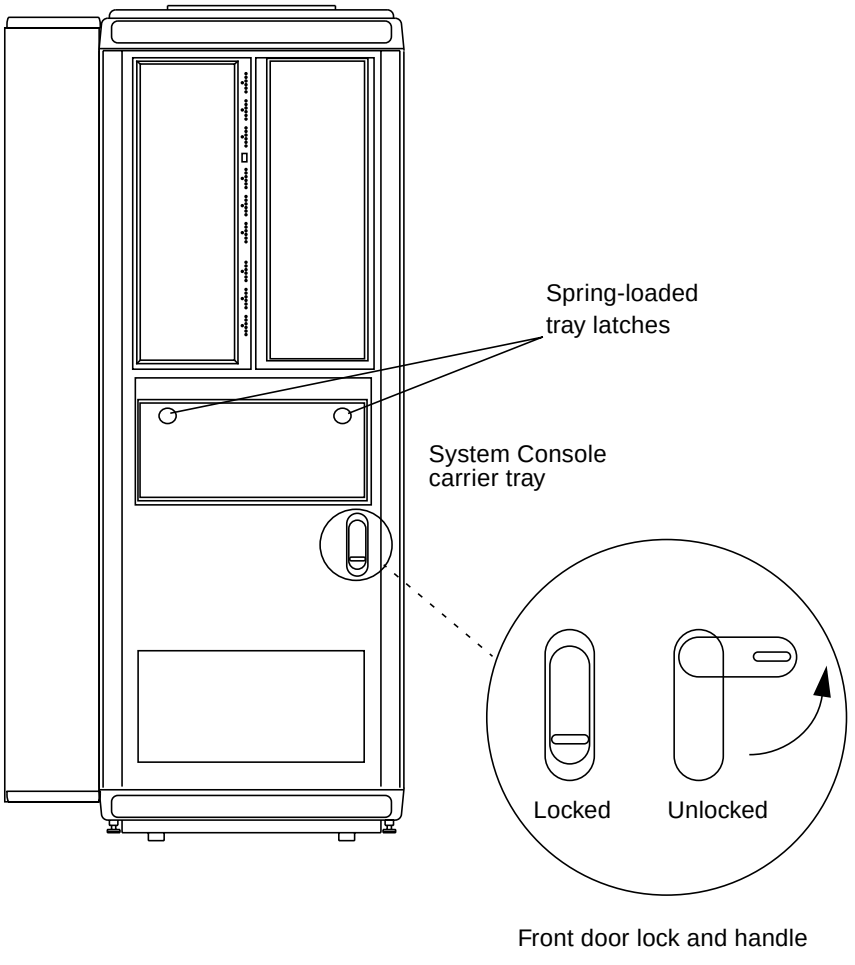


FIGURE 2-2 Cabinet Front Door Lock and Tray Latches

▼ To Power on the Cabinet Power Supply

Next, power on the cabinet power supply; this supply provides power to the blowers at the bottom of the cabinet and the System Console transformer (located in the carrier tray). To power on the cabinet power supply:

1. **Throw the main circuit breaker switch CB1 to the right (ON). See** FIGURE 2-3**.**
2. **Press the cabinet power switch to turn on power to the cabinet.**
3. **At the left AC distribution box, throw the main circuit breaker switch CB1 to the right (ON). See** FIGURE 2-3**.**
4. **Press the cabinet power switch to turn on power to the cabinet. Make sure the switch lights.**
5. **Repeat the above steps for the right AC distribution box.**
6. **Listen for the blower fans; this indicates power has been applied to the cabinet.**

▼ To Check the AC Relay Switch

These steps verify that the AC relay switch is operating.

7. **Perform steps 2 and 3 for both AC boxes.**
8. **At the AC box you first powered on (for DSP1), throw main circuit breaker switch CB1 to the left (OFF) and verify that all three blower fans continue to operate.**
9. **Throw switch CB1 to the right (ON). Verify that power is restored by seeing that the switch lights.**
10. **At the AC box for DSP2, throw switch CB1 to the left (OFF) and verify that all three blower fans continue to operate.**
11. **Throw switch CB1 to the right (ON). Verify that power is restored by seeing that the switch lights.**

▼ To Check Any Other Switches:

12. **Power on the LAD/SCSI Expander. See** FIGURE 2-4 **for switch location at the rear of the cabinet.**
13. **Open the I/O Bay cabinet doors. Just above the right power cord are two switches labeled DSP1 and DSP2. Press the top of the switch to throw these to ON. See** FIGURE 2-5**. These supply power to the dual DC supplies for each subsystem. The LED in each switch will light.**

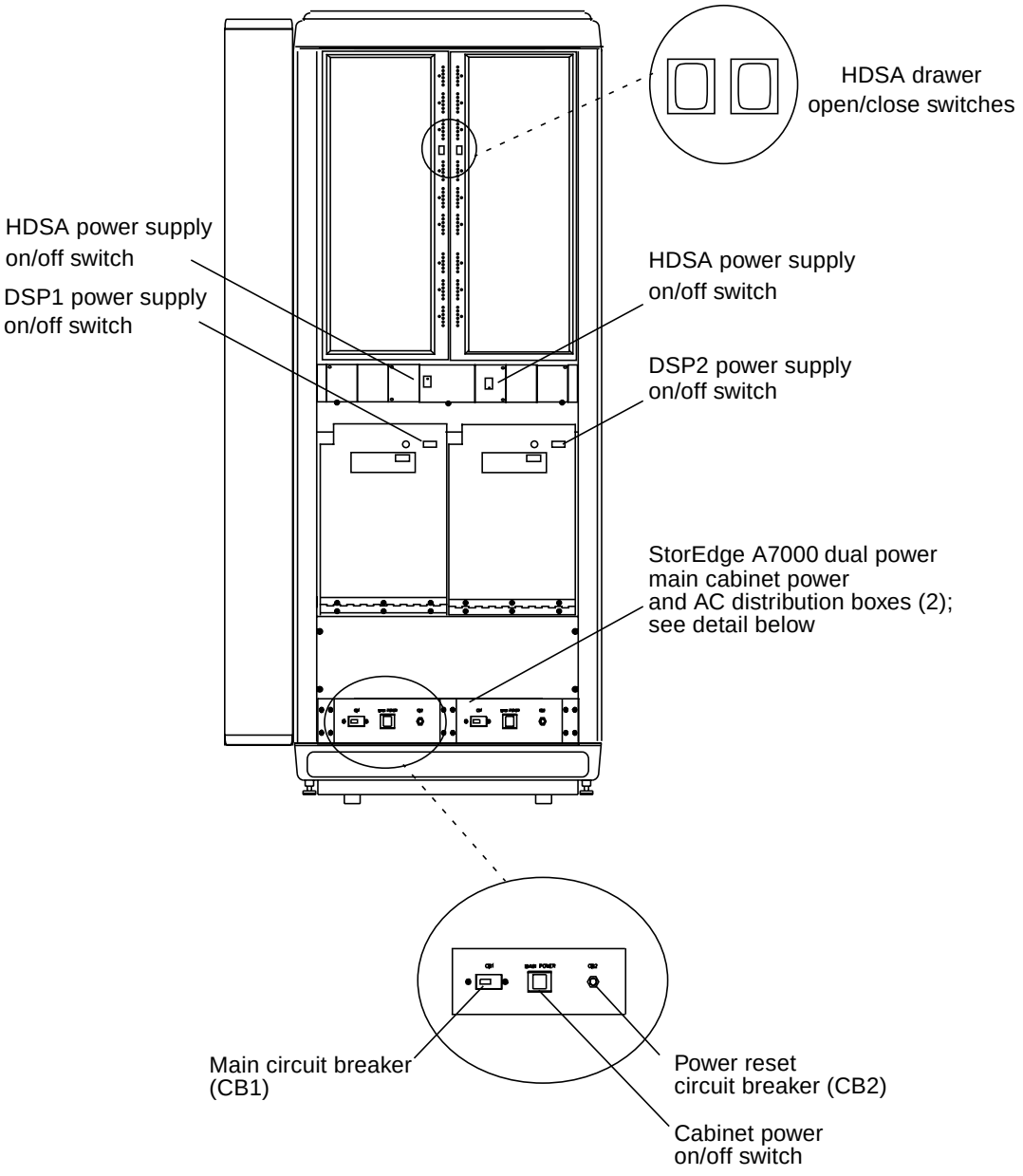


FIGURE 2-3 View of Cabinet Front; Power Switches

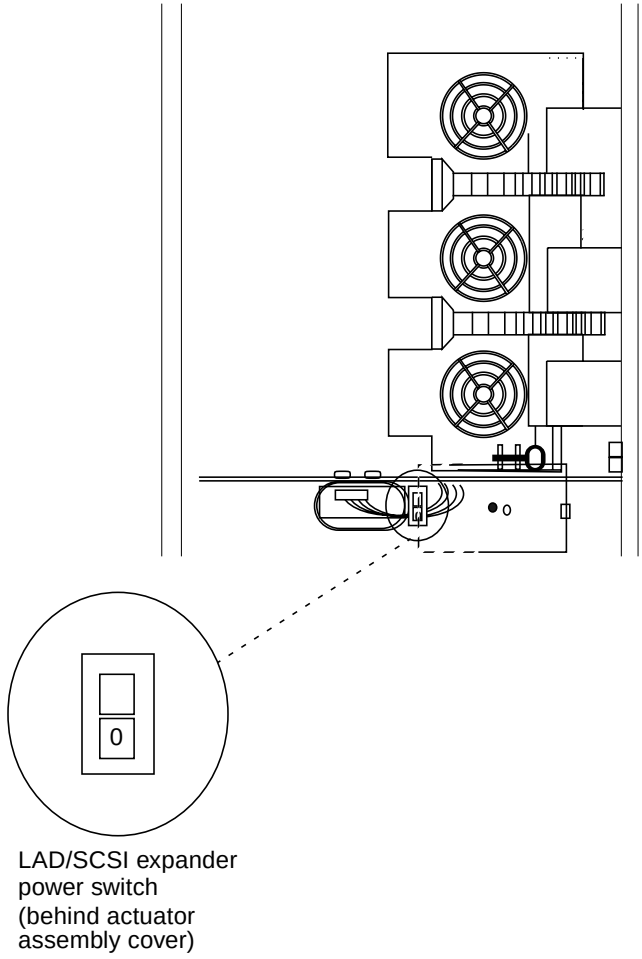


FIGURE 2-4 LAD/SCSI Expander Power Switch Location

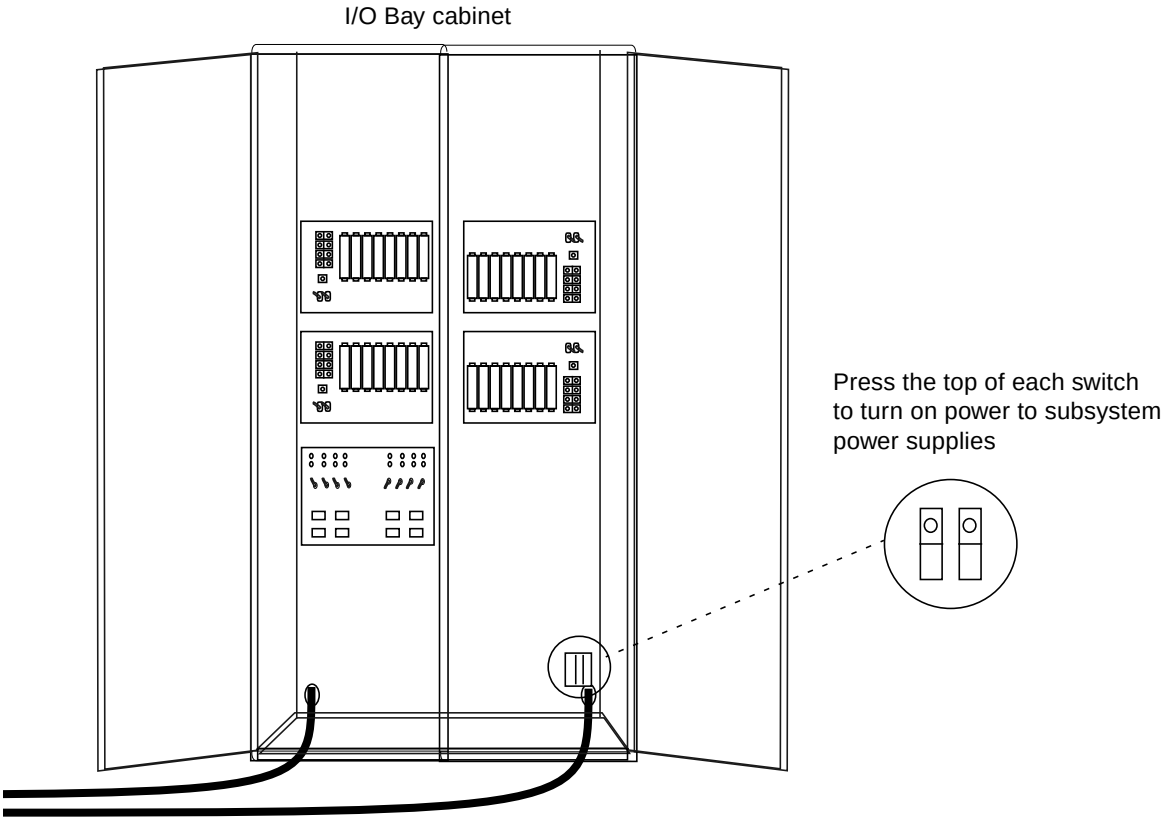


FIGURE 2-5 AC Box Power Switches

Before You Power On the System Console

Caution – When the StorEdge A7000 cabinet is first powered on, the System Console power supply battery charging indicator LED may be lighted.

DO NOT POWER ON THE SYSTEM CONSOLE IF THIS LED IS ON!

Refer “To Turn Off the System Console Power Supply LED” on page 17 for procedures to turn the LED off.

▼ To Turn Off the System Console Power Supply LED

Note – If the System Console power supply LED is off, skip this step.

Before you power on the System Console, this orange LED must be OFF. To turn it off:

1. **Slide the battery cover to the left (see** FIGURE 2-6**).**
2. **Pull the battery out and then push it back in.**
3. **Slide the battery cover to the right, closing it.**
4. **When the orange LED is off, power on the System Console as described in “To Power On the System Console” on page 18.**
5. **If the orange LED remains on, let the battery charge before powering the System Console on.**

Note – Once the System Console is powered on and operating, the battery charging LED may light occasionally; this means the battery is charging and does not interfere with system console operation.

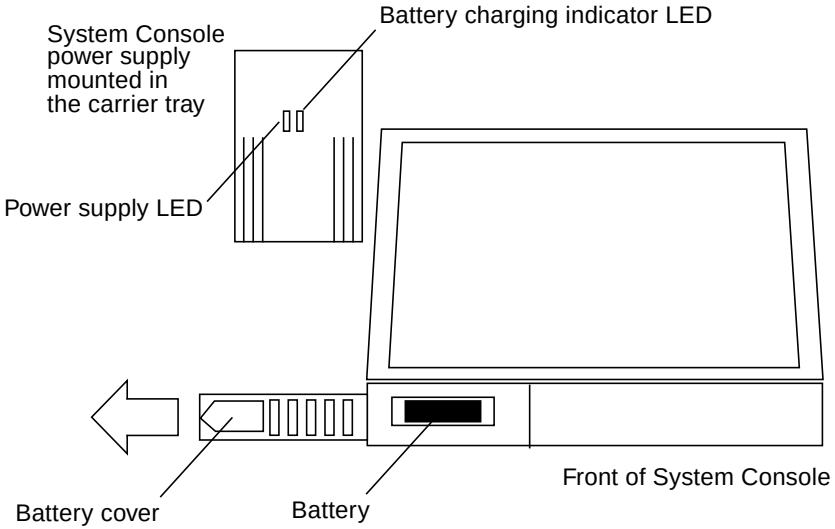


FIGURE 2-6 System Console Battery and Battery Status LED

▼ To Power On the System Console

The System Console is mounted in a carrier tray in the front door. To open the tray and the System Console cover, and power on the System Console:

1. **Close (but do not lock or secure) the cabinet door for this step; keep the door ajar.**
2. **Turn the spring-loaded knobs on the tray clockwise to release the tray. See** FIGURE 2-2**.**
3. **Fold down the front door tray.**
4. **Make sure the cabinet is powered on. Make sure the System Console power supply power LED is on; this power supply is located to the left of the System Console (**FIGURE 2-6**). If the StorEdge A7000 includes the Serial Communications Subsystem (inside the cabinet rear door), make sure its power LED is blinking. See** FIGURE 2-7**.**

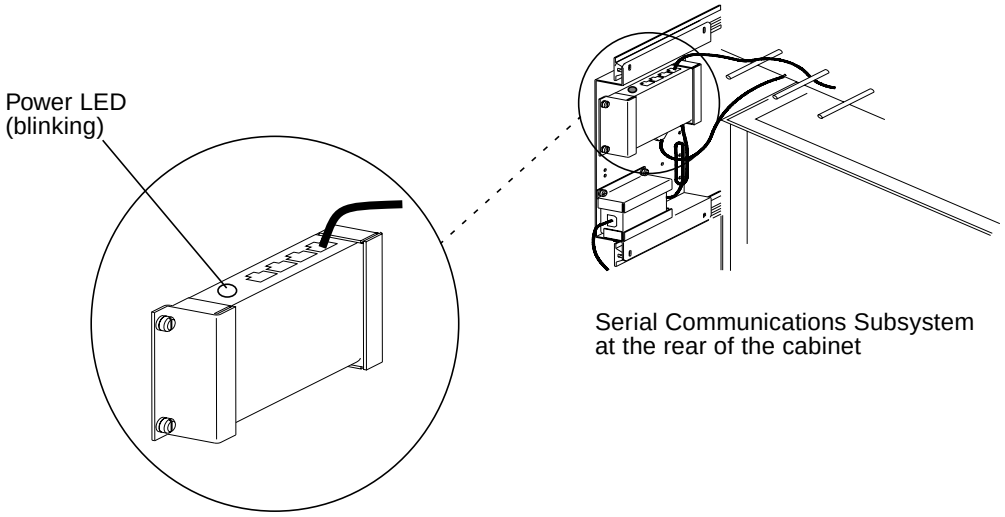


FIGURE 2-7 Serial Communications Subsystem Power Supply LEDs

5. **There is one screen latch on each side of the System Console, as shown in** FIGURE 2-9**. Slide the latches forward and lift the cover.**

Note – Some System Console models have screen latches on the front, on the left and right sides. Slide the left latch to the left, and the right latch to the right; lift the cover. Other models have one screen latch in the front; push the latch in and lift the cover

---

6. **Power on the System Console; its power switch is shown in** FIGURE 2-10**. Also note the location of the trackball or trackpad mouse, pointing device, and left mouse button you will be using in the next steps.**

Note – Some System Console models with the power switch on the side have a cover over the power switch. Slide this cover to the front of the System Console, and then push the power switch to power it on.

Note – Some System Console models have primary and secondary mouse buttons. This guide refers to the primary button as “left” and the secondary button as “right”.

---

7. **Remove any protective plastic from the System Console display.**
8. **Watch the startup process (“boot”) messages for any warnings or failures.**

9. **The System Console operating system and environment boots automatically. Subsystem windows open automatically; make sure one window opens for each subsystem. The subsystem windows will be titled** `dsp1` **and** `dsp2`**.**

   When the System Console is powered on and the graphical user interface appears, a mouse pointer and the System Console Application Menu Bar appears on the System Console display, as shown in FIGURE 2-8.

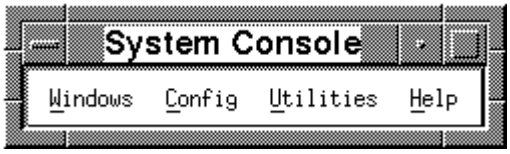


FIGURE 2-8 System Console Application Menu Bar

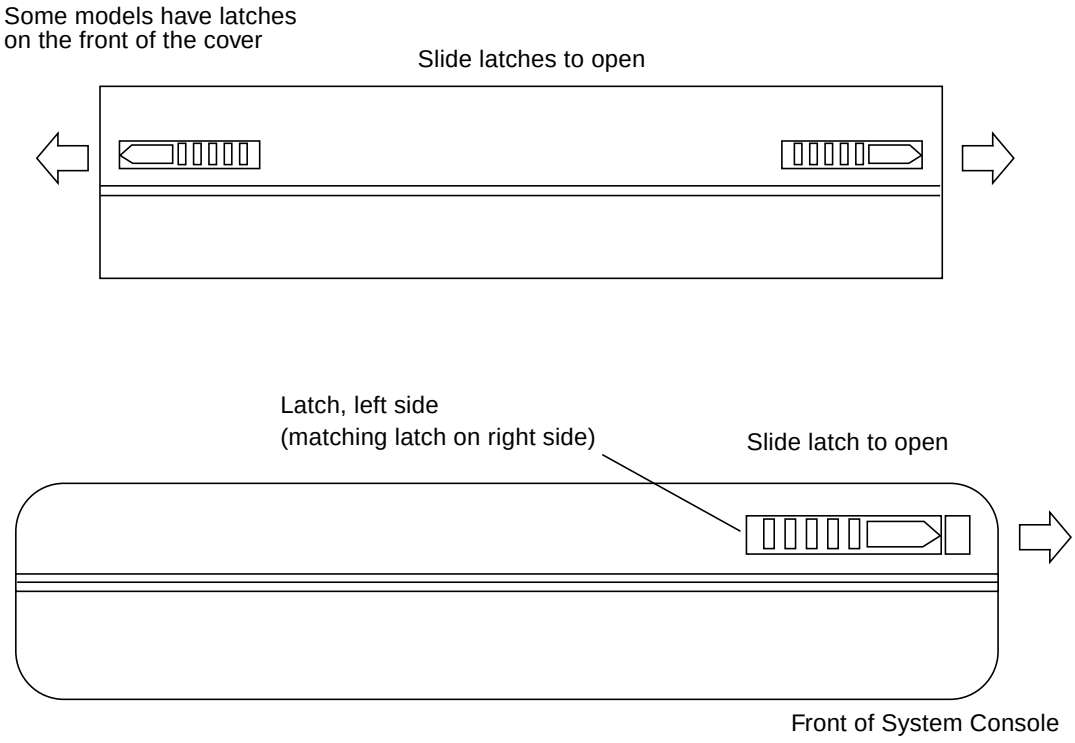


FIGURE 2-9 System Console Cover Latches

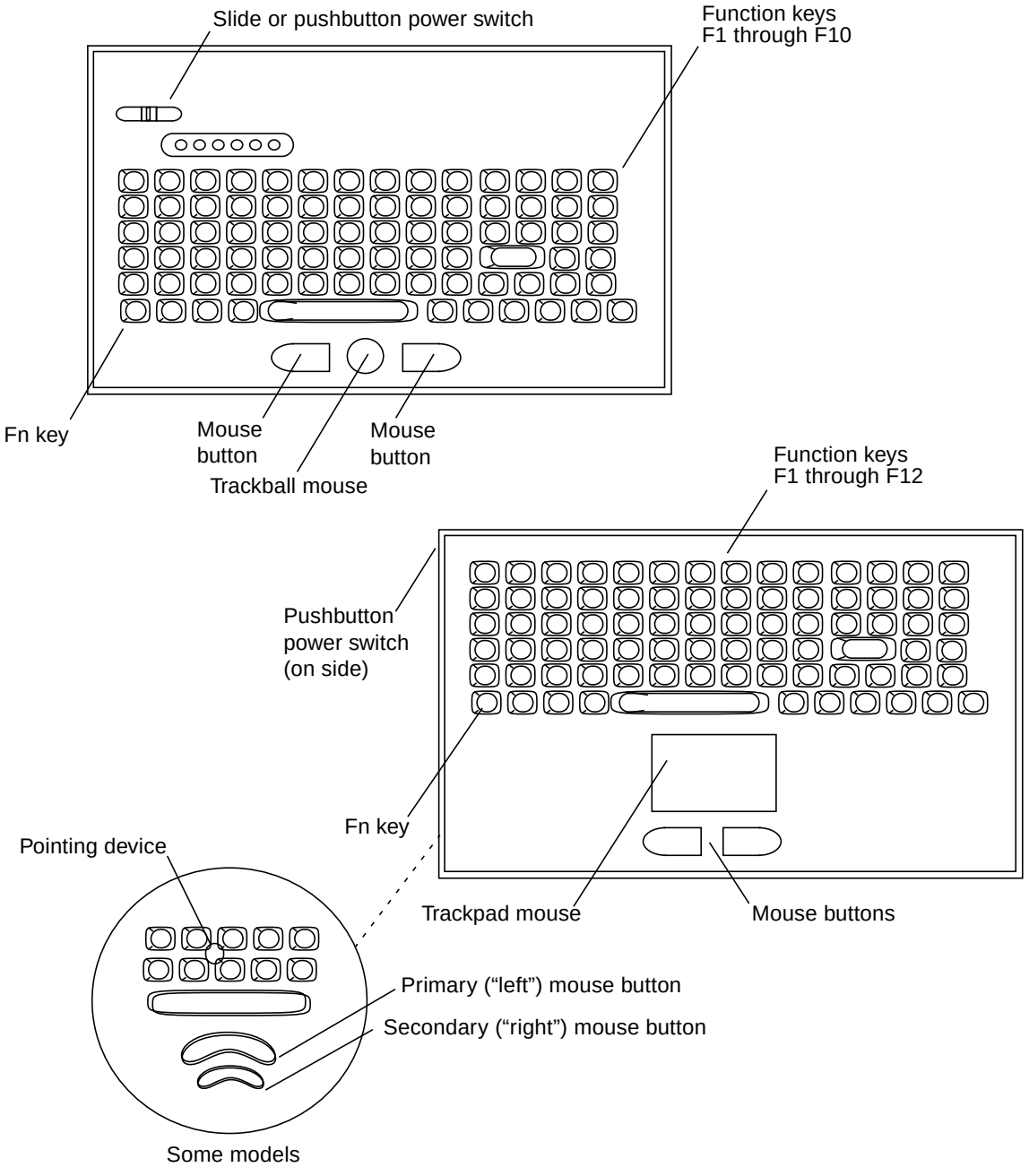


FIGURE 2-10 System Console Power Switch, Mouse Buttons, Trackball/pad, Pointing Device

▼ To Open Windows Into Subsystems

Note – The System Console is factory-configured so that subsystem windows open upon completion of System Console power on. Use the following procedures if windows are not open after power on.

The StorEdge A7000 has two subsystems named `dsp1` and `dsp2`. When powered on, each subsystem sends initialization and powerup messages to the system console; you must open windows to see these messages.

To open windows corresponding to the two StorEdge A7000 subsystems:

1. **Use the trackball/trackpad mouse or pointing device and move the mouse pointer to** `Windows` **at the Menu Bar.**

Note – On the System Console with trackpad mouse or pointing device, move the pointer by putting your finger on the trackpad or pointing device; the pointer moves as your finger moves.

---

2. **Press the left mouse button. A menu appears.**
3. **Drag the mouse pointer to** `dsp1`**. This is the StorEdge A7000 subsystem 1.**
4. **Release the mouse button. Window** `dsp1` **appears and shows any communication occurring through the Processor board's serial port 0.**
5. **Repeat steps 1 to 4 for** `dsp2`**.**

An alternate method to open these two windows is as follows:

1. **Move the mouse pointer to Windows at the Menu Bar.**
2. **Press the Alt-W keys. A menu appears.**
3. **Using the Down arrow key, move the mouse pointer to** `dsp1`**. This is the StorEdge A7000 subsystem 1.**
4. **Press the Enter key. Window** `dsp1` **appears and shows any communication occurring through the Processor board's serial port 0.**
5. **Repeat steps 1 to 4 for** `dsp2`**.**

Coldstarting The StorEdge A7000

The subsystems must now be coldstarted. These steps are defined as follows:

1. **Powering on subsystem** `dsp1`**.**
2. **Powering on subsystem** `dsp2`**.**
3. **Powering on the HDSA power supplies.**
4. **Starting** `dsp1` **operating system software and wait until it finishes (as explained in the following text).**
5. **Starting** `dsp2` **operating system software.**
6. **Starting the DataShare™, simulation, and SCSI target software (optional).**
7. **Closing the cabinet door.**

These coldstart procedures result in the StorEdge A7000 being fully started and ready for use.

▼ To Power On the Subsystems

FIGURE 2-11 shows the subsystem power supply on / off switches. These slide switches move left to right to show a `1` (on) or right to left to show a `0` (off). As shown in FIGURE 2-11, the StorEdge A7000 has two subsystems, `dsp1` and `dsp2`, with a power supply switch for each.

1. **Open the front cabinet door.**
2. **Slide the subsystem power supply on/off switches to the right.**
3. **Close the door partially and go to the System Console. CPU startup messages start to appear in each subsystem window, and finish by displaying the following prompt:**

```
ROM >>
```

4. **Put the cursor in the subsystem window. The mouse pointer turns into a cursor (|). Click the left mouse button to select the window. The window border changes color.**

5. **Reset the subsystem:**

```
ROM >> reset node
```

6. **Repeat steps 4 and 5 for all subsystems.**

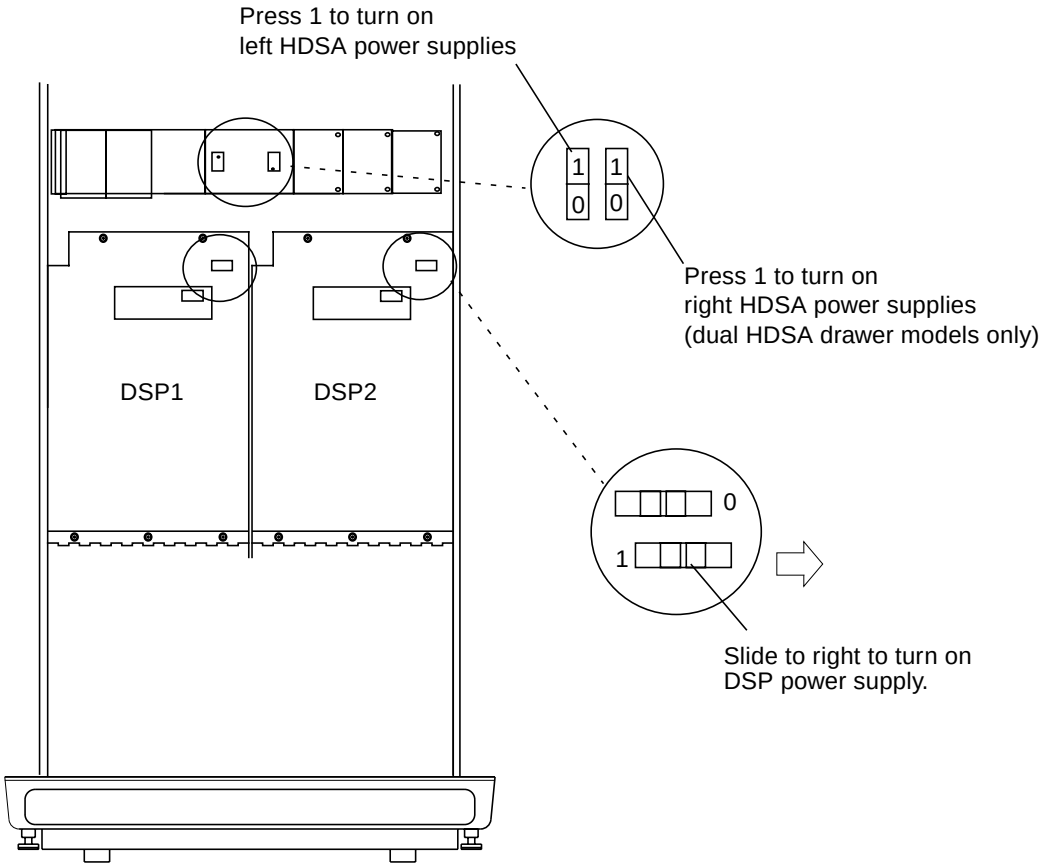


FIGURE 2-11 HDSA and Subsystem Power Supply On/Off Switches

▼ To Power On The HDSA Power Supplies

In the middle of the cabinet front just under the HDSA drawer(s) are the HDSA power supply switches (see FIGURE 2-11). These snap switches are labelled with a `0` and `1`. The `0` position is off and the `1` position is on.

1. **Open the cabinet door completely.**
2. **Place one HDSA on/off switch in the `1` position.**
3. **Dual HDSA drawer models only: Place the right HDSA power supply switch in the `1` position.**

▼ To Start The Subsystems' Operating System Software

1. **Close the door partially and go to the System Console.**
2. **Put the cursor in window `dsp1`.**
3. **At the ROM >> prompt, type the following boldfaced words:**

```
ROM >> boot
```

4. **Startup messages appear, similar to the example messages in** CODE EXAMPLE 2-1**.**
5. **When the following message appears, you can start subsystem `dsp2`:**

```
The system is ready.
Console Login:
```

6. **Put the cursor in window `dsp2`.**
7. **At the ROM >> prompt, type the following boldfaced words:**

```
ROM >> boot
```

8. **Startup messages appear, similar to the example messages in** CODE EXAMPLE 2-1**.**

9. **When the following message appears, powerup is complete:**

```
The system is ready.
Console Login:
```

10. **You can now log into the subsystems. Keep the cursor in window** `dsp2`**.**

11. **Log in to** `dsp2` **as the root user, then press the Return key or enter the site password:**

```
Console Login: root
Password:
```

12. **Repeat step 12 for all subsystems, putting the cursor in each subsystem window.**

▼ (Option) To Start the DataShare Facilities

1. **Start the DataShare Facilities on** `dsp1` **through a** `dsp1` **window (if it does not automatically start):**

```
dsp1# dsf start
```

2. **Repeat for all subsystems.**

▼ (Option) To Start the Simulation Software

1. **Start the simulation on** `dsp1` **through a** `dsp1` **window (if it does not automatically start):**

```
dsp1# ckdadmin start
```

2. **Repeat for all subsystems.**

▼ (Option) To Start the SCSI Target Emulation Software

1. **Start the simulation on** `dsp1` **through a** `dsp1` **window (if it does not automatically start):**

```
dsp1# ste start
```

2. **Repeat for all subsystems.**

CODE EXAMPLE 2-1 StorEdge A7000 Startup Message

```
ROM >>boot
Auto boot (sysboot.110) from 00 6 0
HeaderPartition ImageRev 1.8.0 for OS: Umax V
Loading COFF file from root image at 0 0 6 0 0 /unix
.
.
.
Starting CPU #1
Starting CPU #3
Starting CPU #2
NOTICE: Initializing 10 private buffers for CFS
NOTICE: SystemV NFS Release 3.2/V3
Copyright 1986,1987,1988 Lachman Associates, Inc. (LAI). All
Rights Reserved.
NOTICE: Attempting root mount on S51K FS
NOTICE: Attempting root mount on BSD FS
NOTICE: root mount successful
NOTICE: mvme328: Ctlr 0, ID 4220, Product 091 - 4, Firmware Rev
D01 - 08211996
NOTICE: STE Ctlr 0 Shio B800 FW Rev D04 Driver2.0.0U1.2 QUAD
Int Lvl 5 VectD0, SCSI IDs Ch0[0] Ch1[0] Ch2[0] Ch3[0]
NOTICE: Board0: eccmcs0: Clearing Memory..
.
.
.
maproot: Checking bootdevice entries /dev/[r]dsk/bb[0-f]
Bootdevice Check Complete.
The system is coming up. Please wait.
mem Startup ...
.
.
.
NOTICE: STE Ctlr 0 Shio B800 FW Rev D04 Driver2.0.0U1.2 QUAD
Int Lvl 5 VectD0, SCSI IDs Ch0[0] Ch1[0] Ch2[0] Ch3[0]
NOTICE: SCSI Target Mode Ctrl 0 Initialized
NOTICE: STE:started24 TMD's
SCSI Target Emulation Startup Complete
.
.
.
The system is ready.
Console Login:
```

▼ Close the Front Cabinet Door and Fold Up the System Console Carrier Tray

Now that you have started the StorEdge A7000, you can close the front cabinet door and fold up the System Console carrier tray. See FIGURE 2-2:

1. **Close the door firmly, but gently.**
2. **Grab the latch and turn it clockwise so that it points straight down. It will "catch" or engage.**
3. **Push the bottom of the latch in until it is flush with the rest of the latch assembly.**
4. **Insert a flat blade screwdriver in the door lock and turn it counterclockwise to secure the door.**
5. **Close the System Console cover by pushing it down until the latches engage.**
6. **Fold up the tray. When it is nearly closed, turn the tray latches clockwise, push the tray all the way up, and release the latches to secure the tray.**

Powering Off the StorEdge A7000

The power off procedure includes the following steps:

1. **Opening the System Console carrier tray and System Console cover.**
2. **Stopping the simulation software on each subsystem.**
3. **Selecting shutdown from the** `System Console` **Application Menu Bar to shutdown the subsystems. (Optional) If the autoboot feature is enabled, then abort the subsystem restart.**
4. **Shutting down the System Console.**
5. **Powering off the System Console.**
6. **Opening the front cabinet door.**
7. **Powering off the** `dsp2` **subsystem power supply, then the** `dsp1` **subsystem power supply.**
8. **Powering off the HDSA supplies.**
9. **Powering off the cabinet power supply.**
10. **Closing the cabinet door.**

▼ To Open the System Console Carrier Tray and System Console Cover

To open the tray holding the System Console and the System Console cover:

1. **Turn the spring-loaded knobs on the tray clockwise to release the tray. See** FIGURE 2-2**.**
2. **Fold down the front door tray.**
3. **There is one screen latch on each side of the System Console, as shown in** FIGURE 2-9**. Slide the latches forward and lift the cover.**

   Some System Console models have screen latches on the front, on the left and right sides. Slide the left latch to the left, and the right latch to the right; lift the cover.
4. **The System Console display may be blank. Press any key to reactivate the display.**

Note – If windows for all subsystems are not currently open, open them and then log into the subsystems as described in this chapter.

▼ To Stop the Simulation Software

1. **Move the mouse pointer to window** `dsp1`**. Enter the following:**

```
dsp1# ckdadmin stop_noswitch
```

   Messages display to show the simulation stopping; when the procedure stops, perform the next step.
2. **Repeat step 1 for all subsystems.**

▼ To Shut Down All Subsystems

1. **Move the cursor to the System Console Application Menu Bar.**
2. **Move the mouse pointer to Utilities and press the left mouse button. A pulldown menu appears, as shown in** FIGURE 2-12**.**
3. **Drag the pointer to** `shutdown` **and release the left mouse button.**
4. **A popup window titled** `Shutdown` **appears, as shown in** FIGURE 2-12**. Move the mouse pointer to** `all nodes` **and click on it with the left mouse button.**
5. **Press** `Y` **at the** `Ready To Shutdown Now?` **prompt in the** `dsp1`/`dsp2` **windows to immediately shutdown. The** `dsp1` **window will display a series of shutdown messages followed by a** `The System is down` **type message.**

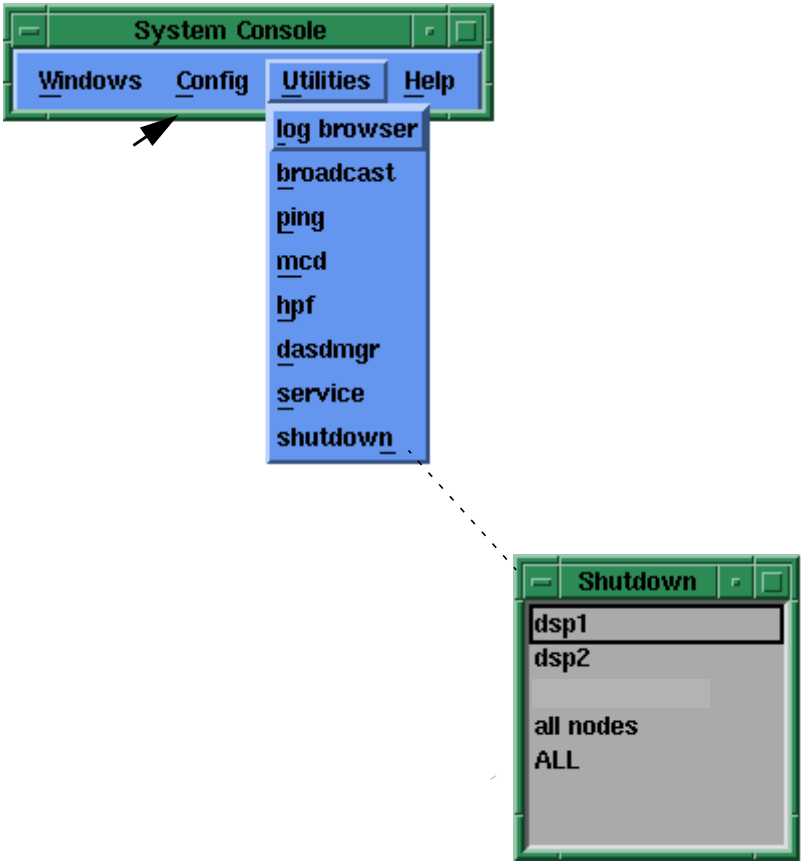


FIGURE 2-12 Shutdown Pulldown Menu

▼ To Abort The System Reboot (Optional)

If the autoboot feature is enabled, the subsystems will attempt to reboot and startup messages start to appear.

1. **When you see the following message in the** `dsp1` **window, press any key before 7 seconds elapse:**

```
You have 7 seconds to terminate the autoboot sequence . . .
```

If the system is not set to automatically boot, go to the next step.

2. **The following prompt appears:**

```
ROM >>
```

3. **The** `dsp1` **window will display a series of shutdown messages followed by a** `The System is down` **type message.**

4. **When you see the following message in the** `dsp2` **window, press any key before 33 seconds elapse:**

```
You have 33 seconds to terminate the autoboot sequence . . .
```

If the system is not set to automatically boot, go to the next step.

5. **The following prompt appears:**

```
ROM >>
```

The operating systems for all subsystems are now shut down.

▼ To Shut Down the System Console

1. **Put the mouse pointer in any open area on the display.**
2. **Press the left mouse button. A menu appears. Drag the mouse pointer to EXIT MWM. Release the left mouse button.**
3. **Drag the mouse to the OK pushbutton on the QUIT MWM dialog box; click Yes.**

   The display goes blank momentarily, and then the Console Login: prompt reappears.
4. **Log in to the System Console. To log in, type the boldfaced word:**

   ```
   Console Login: root
   ```
5. **The system responds with a** `Password:` **prompt. Press the Enter key. The system prompt (#) appears.**
6. **Type the following:**

   ```
   dsp1# /etc/shutdown -y -g0 -i0
   ```

   The System Console will display a series of shutdown messages followed by a `Shutdown complete` type message.

▼ To Power Off The System Console

The System Console can now be powered off.

1. **You can now power the System Console off. Push or slide the power switch.**
2. **Close the System Console cover by pushing it down until the latches engage.**
3. **Fold up the tray. When it is nearly closed, turn the tray latches clockwise, push the tray all the way up, and release the latches to secure the tray.**

▼ To Open the Front Cabinet Door

The front cabinet door is located at the lower half of the system cabinet. The front door also contains the System Console in its tray carrier. See FIGURE 2-2. To open the front cabinet door:

1. **Insert a flat blade screwdriver in the door lock and turn it clockwise.**
2. **Pull the bottom of the latch out toward you and turn the latch assembly counterclockwise.**
3. **Pull the latch to open the door. The door must be open to perform the power off procedures.**

▼ To Power Off The Subsystems

All subsystems can now be powered off.

1. **The `dsp2` subsystem is the right subsystem. Slide the power supply on/off switch to the left as shown in** FIGURE 2-11**.**
2. **The `dsp1` subsystem is the left subsystem. Slide the power supply on/off switch to the left. Slide the switch to the left.**

▼ To Check Other Switches

1. **Power off the LAD/SCSI Expander. See** FIGURE 2-4 **for switch location.**
2. **Open the I/O Bay cabinet doors. Just above the right power cord are two switches labeled DSP1 and DSP2. Press the top of the switch to set these to OFF. See** FIGURE 2-5**.**

▼ To Power Off the HDSA Supplies

In the middle of the cabinet front just under the HDSA drawer(s) are the HDSA power supply switches (see FIGURE 2-11). These snap switches are labelled `0` and `1`. The `0` position is off and the `1` position is on.

1. **Open the cabinet door completely.**
2. **Place one HDSA on/off switch in the `0` position.**
3. **Place the other HDSA on/off switch in the `0` position.**

▼ To Power Off The Cabinet Power Supply

1. **Press the cabinet power switch to turn off power to the cabinet (see** FIGURE 2-3**).**
2. **Throw the main circuit breaker switch CB1 switch to the left (OFF).**
3. **For the StorEdge A7000/SP60, repeat these steps for both AC boxes.**

▼ To Close the Front Cabinet Door

Now that you have powered the StorEdge A7000 off, you can close the front cabinet door and fold up the System Console carrier tray. See FIGURE 2-2:

1. **Close the door firmly but gently.**
2. **Grab the latch and turn it clockwise so that it points straight down. It will "catch" or engage.**
3. **Push the bottom of the latch in, until it is flush with the rest of the latch assembly.**
4. **Insert a flat blade screwdriver in the door lock and turn it counterclockwise to secure the door.**

Glossary

coldstart to power on the StorEdge A7000 system from a completely-powered off state.

DASD Direct Access Storage Device.

DRAM Dynamic Random Access Memory storage on the Processor board.

dsp1, dsp2 names of the two subsystems in the StorEdge A7000 storage server.

GUI Graphical User Interface; operator communicates with the system through the use of graphical icons, windows, and trackball mouse actions (such as pointing and clicking).

HDSA High Density Storage Array; drawer containing disk drive modules.

NVRAM Nonvolatile RAM Storage on the Processor board; used to store ROM Monitor configuration information.

PCMCIA Personal Computer Manufacturer Card Interface Adapter; the system console contains two PCMCIA slots.

RAID redundant arrays of inexpensive disks.

RAM Random Access Memory.

SCSI Small Computer System Interface; communications bus type used by disk drive modules.

subsystem the combination of an independently-powered symmetric multiprocessor Processor board and option boards in a 14-slot chassis with operating system software; it supports the HDSA in the server.

System Console notebook computer located in a carrier tray in the front door of the StorEdge A7000 cabinet; primary operator interface to the StorEdge A7000.

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