

Andromeda

User Manual

Ultra 320 SCSI to Serial ATA II

&

Fibre Channel to Serial ATA II

Disk Array Systems



Andromeda SA-6640S

Ultra 320 SCSI to Serial ATA II

Disk Array System

&

Andromeda SA-6641S

Fibre Channel to Serial ATA II

Disk Array System

Hardware User Manual

Table of Contents

Preface.....	i
--------------	---

Chapter 1 System Requirements

Operating Environment	1
VT100 Terminal Settings	1
Host Interface	2

Chapter 2 Basic Configuration

Unpacking	3
Components	4
Closed Front Panel	4
Open Front Panel	5
Disk Tray	6
SA-6640S Rear View	7
SA-6641S Rear View	8
Installing Disks	9
Making Connections	11
Connecting the Host Interface	11
Connecting a network	13
Connecting and Turning on the Power	14
Mounting in a Rack	15
Installing the Rail Extenders	16

Chapter 3 Maintenance

Replacing a Disk	17
Replacing a Power Supply	18
Upgrading Memory	20

Appendix

Hardware Specifications	23
-------------------------------	----

Preface

About this Manual

This manual is designed to make the disk array system as easy to use as possible. Information contained in this document has been checked for accuracy, but no guarantee is given that the contents are correct. Information and specifications are subject to change without notice.

Copyright Notice

© Copyright 2005 Globalstor Data Corp.

All rights reserved. This disk array system and related documentation are protected by copyright and are distributed under licenses restricting their use, copying, and distribution. No part of this documentation may be reproduced in any form by any means without prior written authorization of Globalstor Data Corp. and its licensors, if any.

Conventions



Caution

This symbol is used to remind users to pay attention to important descriptions regarding usage and maintenance (repair) or additional important information related to this disk array system.



Note

This symbol is used to remind users of useful information that can make procedures such as configuration easier to accomplish.

Important Safety Instructions, Care and Handling



Before starting, take a few minutes to read this manual. Read all of these instructions and save this manual for later reference.



Protect the disk array system from extremely high or low temperatures. Let the disk array system warm (or cool) to room temperature before using it.



Protect the disk array system from being bumped or dropped. Do not place the disk array system on an unstable cart, stand, or table. It may fall, causing serious damage to the product.



Keep the disk array system away from magnetic forces.



Do not use the disk array system near water.



Keep the disk array system away from dust, sand, or dirt.



Gaps and openings in the cabinet are provided for ventilation. Never block or cover these openings, because the disk array system may overheat and become unreliable. Don't place the disk array system on a bed, sofa, rug, or other similar surface.



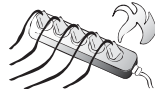
Do not place the disk array system near or over a radiator or other heat source.



Refer to the rating plate for the correct voltage and ensure that the appliance voltage corresponds to the supply voltage.



The appliance must be grounded. The disk array system is equipped with a 3-wire grounded type of power cord. This power cord will only fit into a grounded type of power outlet.



If an extension cord or a power center is used with the disk array system, make sure that the total current consumption of all products plugged into the wall outlet does not exceed the ampere rating.



Do not place the disk array system where the cord will be walked on.



Never push any kind of object into the disk array system through cabinet gaps and openings, since they may touch dangerous voltage points and cause a risk of fire or electric shock.



Unplug the power cord from the wall outlet before cleaning. Keep the disk array system dry. Do not use liquid cleaners, aerosol cleaners, or a wet cloth. Use a damp cloth for cleaning.



Except as specifically explained in this User Manual, do not attempt to service the disk array system by yourself. Opening or removing the covers may expose you to dangerous voltages.



Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions.

- If the disk array system has been exposed to water or any liquid.
- If the disk array system has been dropped or the cabinet damaged.



Users should not remove the cover.



Disconnect all power supply cords before servicing.



Placement Notes

- The disk array system LCD panel can be damaged by exposure to direct sunlight. Limit exposure to subdued or indirect sunlight only.
 - The disk array system should be used only in clean environments that are free from airborne contaminants such as dust, dirt, and smoke. Excessive moisture or oil particles in the air can also hinder disk array system performance.
 - To reduce the possibility of data errors caused by electromagnetic interference, locate the disk array system at least five feet away from electrical appliances and equipment that generates magnetic fields.
-



Power Supply Safety Notes

- To avoid electric shocks, do not use an extended power cord or an outlet that does not match the disk array system plug or leaves the plug exposed.
 - The disk array system has a 3-wire grounded plug. The third pin connects to ground; do not remove it.
 - If the power cord or plug is damaged or worn, unplug it immediately and contact a qualified service technician for maintenance.
 - To avoid fire or electric shocks, do not overload electric power outlets.
-

1 System Requirements

Ensure that the following requirements are met before installing the disk array system.

Operating Environment

- 15 cm (6-inches) of space around the disk array system for proper ventilation
- ambient temperature of 5°C to 40°C (40°F to 104°F)
- ambient non-condensing relative humidity of 10% to 85%
- dust, smoke, and oil free environment
- no large magnetic fields, such as those generated by a high voltage power cables and motors, etc.
- no direct sunlight
- a flat, stable surface capable of supporting the disk array system

VT100 Terminal Settings

Refer to the following table for a summary of VT100 terminal settings required to communicate with the disk array system. Refer to your system manual for instructions on setting up the VT100 terminal settings.

Item	Required Setting
Connection	Serial Port (COM1 or COM2)
Protocol	RS232 (Asynchronous)
Cabling	Null Modem cable
Baud Rate	115200
Data Bits	8
Stop Bit	1
Parity	None

Andromeda SA-6640S & SA-6641S Serial ATA II Disk Array Systems

Host Interface

The disk array system has either dual SCSI interfaces or dual fibre channel interfaces. Refer to the following sections to understand host interface system requirements.

Small Computer Systems Interface

The SA-6640S has dual Ultra320 SCSI interfaces that are compatible with previous SCSI standards. Refer to the following table to understand SCSI bus requirements.



Note

Subtract the internal cable length (30 cm) from the maximum SCSI bus length to calculate the maximum external SCSI cable length.

SCSI Standard	Maximum SCSI Bus Length in Meters	Data Rate in Megabytes per Second	Maximum Number of Devices
Ultra320	12	320	15
Ultra160	12	160	15
Ultra2	12	80	15
Ultra Wide	1.5	40	7
Fast Wide	3	20	15
Ultra	1.5	20	7

Fibre Channel Interface

The SA-6641S has dual 2 Gbit fibre channel interfaces with SFP connectors for linkage to a fibre channel switch or host computer interface card. With the correct SFP transceiver and optical cable, the following transmission distances can be achieved.

Component	Optical	
SFP Transceiver	LC Optical	
Cable	Short Wave	Long Wave
Maximum Cable Length	50m	10 Km

